CHAPTER 13: FOTC/BCST

13.0 FOTC/BCST

The FOTC/BCST pull-down menu controls the following menu options: Report Log, ATO Message Log, Input Message Filters, Input Geo Filters, FOTC Parameters, FOTC SITREP, FOTC SITREP Summary, and Broadcasts.

SUMMARY OF COMMON OPERATIONS—FOTC/BCST

Window buttons and pop-up menu options common to most JMCIS operations are described in this section and will not be discussed in detail in the following sections. The buttons and options listed below are routinely found on FOTC/BCST option windows. Those that are "exceptions to the rule" will be described within their respective sections.

Note: See Appendix A, *Common Operations* , for a more detailed description of these buttons and options.

ACTIVATE—turns the designated object/function ON. For example, to activate an overlay means to plot it on the tactical display.

ADD—opens a window to add a like record or function.

CANCEL—discards changes made to a record and returns to the previous function.

DEACTIVATE—turns the designated object/function OFF.

DELETE—removes (deletes) the selected record(s) from the database.

EDIT—opens a window to view or change the settings of a record.

EXIT—exits (leaves) the option in use.

EXPORT—sends records from one workstation to others on the network.

HELP—provides a general description of the option, function, or window.

OK—accepts any changes made to a record and returns to the previous function.

PRINT—generates a printed report of the selected record or file.

SELECT ALL—selects all the items in a list.

UNSELECT ALL—deselects all the items in a list.

XMIT—sends a record from a particular database to another location.

13.1 REPORT LOG

Use the REPORT LOG option to view report message information. Each line in the scroll list represents a track report.

To access this window: FOTC/BCST menu **:** REPORT LOG option **:** REPORT MESSAGE LOG window (Figure 13.1-1).

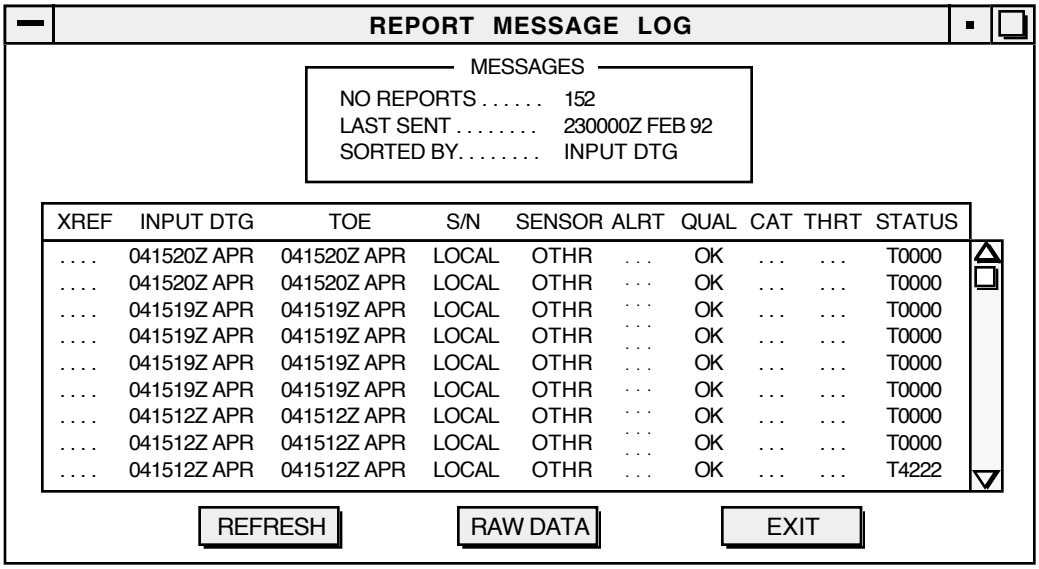


Figure13.1-1 Report Message Log Window

REPORT MESSAGE LOG Window Buttons

REFRESH—list messages that entered the system since selecting this option.

RAW DATA—review, edit, and reprocess a selected message. Described in *Edit and Reprocess Report Message*.

EXIT—close the window.

REPORT MESSAGE LOG Window Pop-up Menu Options

Pop-up menu options (described in *REPORT MESSAGE LOG Pop-up Menu*): EXIT, PRINT LISTING, PRINT RAW MSG, RAW DATA, SELECT ALL, TRACK EDIT, and UNSELECT ALL.

REPORT MESSAGE LOG Window Fields

The MESSAGES box shows the number of reports in the system, the last time a report was sent, and the sort column for the scroll list.

The scroll list shows a complete list of track reports in the system. Reports for tracks that are in the system appear in light blue. Reports for deleted tracks appear in white. The following columns are shown for each report in the list:

XREF

Two-character source cross-reference code for the Command that originated the message. The following codes are preset for JMCIS:

XREF CODE	COMMAND
L1, L2, L3, or L4	LINK-11
XX	FOTC
XO	Operator
XE	AEN

Other cross-reference codes can be entered into the system using the SOURCE XREF TABLE (TRACKS menu, TRACK TABLES option, SOURCE XREF TABLE cascading option).

If the cross-reference code does not correspond to one of the preset codes, check the SOURCE XREF TABLE to find the corresponding Command.

INPUT DTG

Date-time group when the report was processed into the system.

TOE

Date-time group contained in the contact report.

S/N

Serial number of the message ID. If the message does not appear in the Incoming Message Log, this column shows LOCAL. The column is blank if a serial number is not found or is invalid in the message ID.

SENSOR

Sensor used to detect the track for this report.

ALRT

Alert level of the track for this report.

QUAL

Currently not implemented. (It will probably always show OK.)

CAT

Category of the track for this report (NAV, SUB, AIR, etc.).

THRT

Threat level of the track for this report (FRI, HOS, NEU, etc.).

STATUS

Track number.

13.1.1 EDIT AND REPROCESS REPORT MESSAGE

Select a report in the REPORT MESSAGE LOG window and click the RAW DATA button to open the RLOG EDITOR window (Figure 13.1 -2).

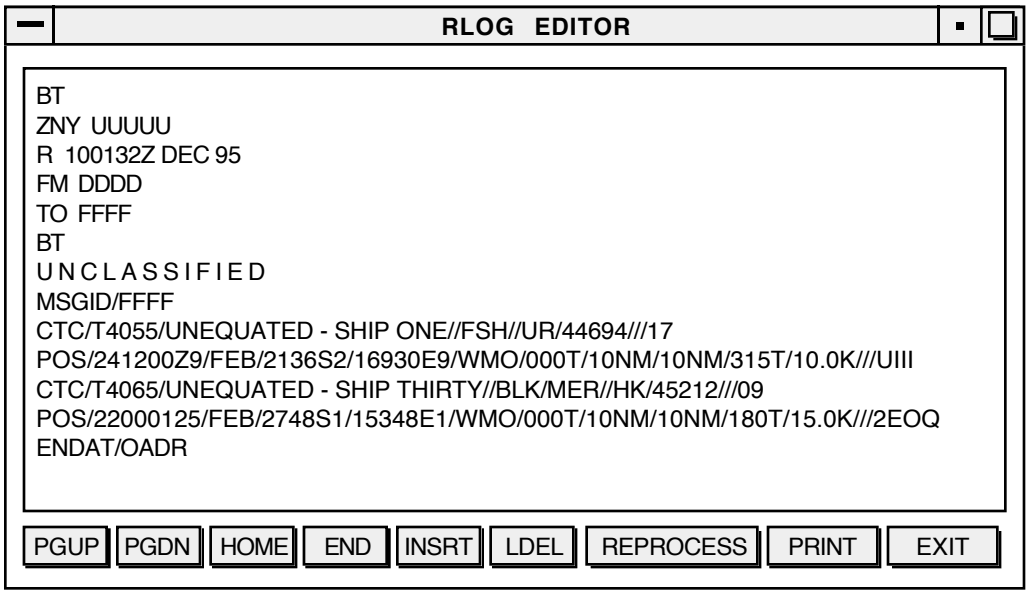


Figure 13.1-2 RLOG Editor Window

RLOG EDITOR Window Buttons

PGUP or PGDN—show the next page of information in an upward or downward direction.

HOME—show the first page of data.

END—show the last page of data.

INSRT—insert a blank line above the selected line, to enter data.

LDEL—delete the selected line.

REPROCESS—reprocesses any changes made to the message.

1. Modify the message using INSRT and LDEL.
2. Click REPROCESS.
3. The RLOG EDITOR window closes.
4. The tactical display is updated appropriately.

PRINT—the selected report.

EXIT—discard any changes and closes the window.

13.1.2 REPORT MESSAGE LOG POP-UP MENU

Options on the REPORT MESSAGE LOG pop-up menu (RAW DATA, SELECT ALL, UNSELECT ALL, and EXIT) perform as described in the *Summary of Common Operations* or function as buttons with the same names described elsewhere in this section. The menu also includes:

TRACK EDIT

Use this pop-up option to view the EDIT window for a selected report.

1. Select the report from the list in the REPORT MESSAGE LOG window.
2. Select the TRACK EDIT pop-up option.
3. The EDIT window for the selected report appears. (Refer to *EDIT* in the TRACKS chapter for detailed information about the EDIT window.)
4. Click OK to accept any changes, or click CANCEL to discard them.

DELETE MESSAGES

Currently not active. When activated, messages can be deleted from the REPORT MESSAGE LOG.

PRINT LISTING

Use the PRINT LISTING pop-up option to print a copy of selected entries from REPORT MESSAGE LOG list.

1. Select the messages and choose PRINT LISTING from the pop-up menu.
2. The JMCIS PRINTER window opens to start the printing process. (Refer to Appendix A, *Common Operations* for detailed information about printing.)

PRINT RAW MSG

Use the PRINT RAW MSG pop-up option to print the raw data of selected messages from REPORT MESSAGE LOG list.

1. Select the messages and choose PRINT RAW MSG from the pop-up menu.
2. The JMCIS PRINTER window opens to start the printing process. (Refer to Appendix A, *Common Operations* for detailed information about printing.)

13.2 ATO MSG LOG

Use the ATO MSG LOG option to view a list of air tasking orders (ATOs) received through transmissions to JMCIS.

About ATO Messages:

Each ATO message contains air mission information for a particular day.

- ATOs are stored by the starting DTG specified in the MSGID and PERID lines in the message.
- Original messages (i.e., the first received for a given DTG) are saved as CHANGE.0000.
- Subsequent messages are saved as CHANGE.0001, CHANGE.0002, etc. The "next available" change number is assigned to the newly received message.
    - For example, if three changes (CHANGE 0001, 0002, and 0003) were previously stored, in addition to the original (CHANGE.0000), the "next available" change number would be CHANGE.0004. However, if an operator manually deleted CHANGE.0002, then the next available change number would be CHANGE.0002.
- ATOs are saved by the system *only* if the newly received message has not been previously saved.

An ATO may consist of many segments. A segment may represent a specific air tasking assignment for a particular aircraft or squadron or a RMKS data set within an ATO.

Each task (segment) may consist of multiple missions.

- For example, a task might contain three missions—two missions that involve flying over particular targets, and the third mission that patrols a particular area.

ATOs may be accessed to:

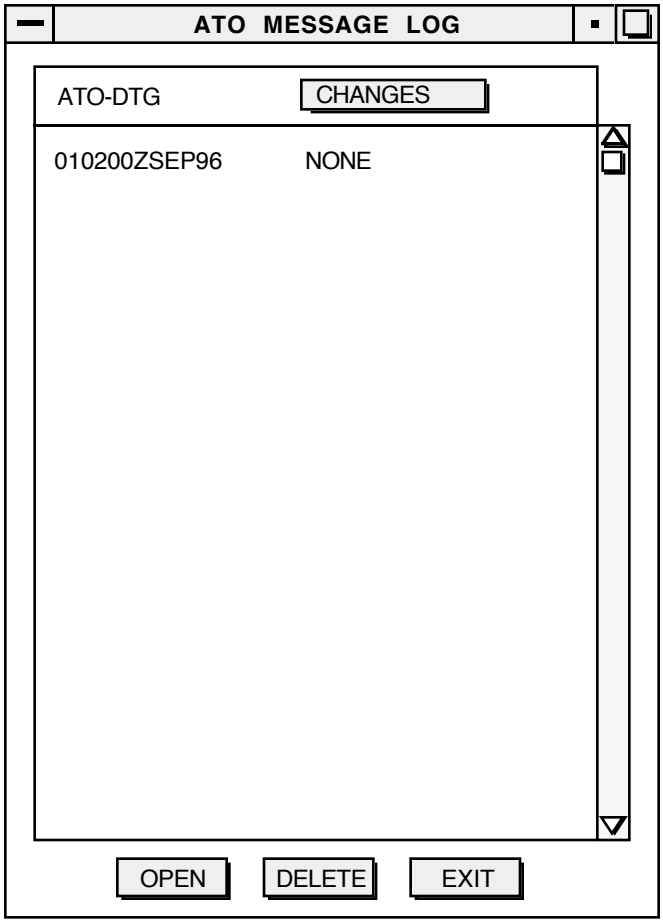
- view the header information and raw data prior to transmission
- transmit segments to other locations
- delete segments from an ATO

Missions may be viewed and plotted in one of two ways:

- all data for an individual mission
- missions (of various types) that fall within a specified time period

Selected mission targets can be plotted on the tactical display.

To access this window: FOTC/BCST menu **:** ATO MSG LOG option.



ATO MESSAGE LOG Window Actions

➤ DELETE—delete all ATO messages associated with the selected DTG.

1. If ATOs are deleted, closely monitor incoming ATOs to make sure the system is not deleting and receiving simultaneously.
2. Before deleting, check to see if ATO messages are being received.
3. Select one or more ATOs from the ATO MESSAGE LOG window list.
4. Click DELETE and the selected ATOs are removed from the system.

➤ EXIT—close the window.

➤ OPEN—list ATO original and changes for the selected DTG. (See *AIR TASKING ORDERS Window Actions* for additional details.)

1. Select a DTG from the scroll list.

2. Click OPEN to access the AIR TASKING ORDERS window and do one of the following:
   - View the list of changes.
   - View the segment header and raw data.
   - Plot ATO targets on the tactical display, based upon the missions that make up the ATO.
   - Delete the changes.

➤ PROCESSING (pop-up option)—import or export ATO information between the ATO database within JMCIS and either of the following: DOS floppy disk or CTAPS server (import only).

- When ATO data is imported:

  The information is viewable from the AIR TASKING ORDERS window.

  A NIPS query can be generated for ATOs that lack lat/long target information.

  For each ATO message imported from CTAPS, the USER IN appears in the CHANNEL column of the INCOMING MESSAGE LOG window.

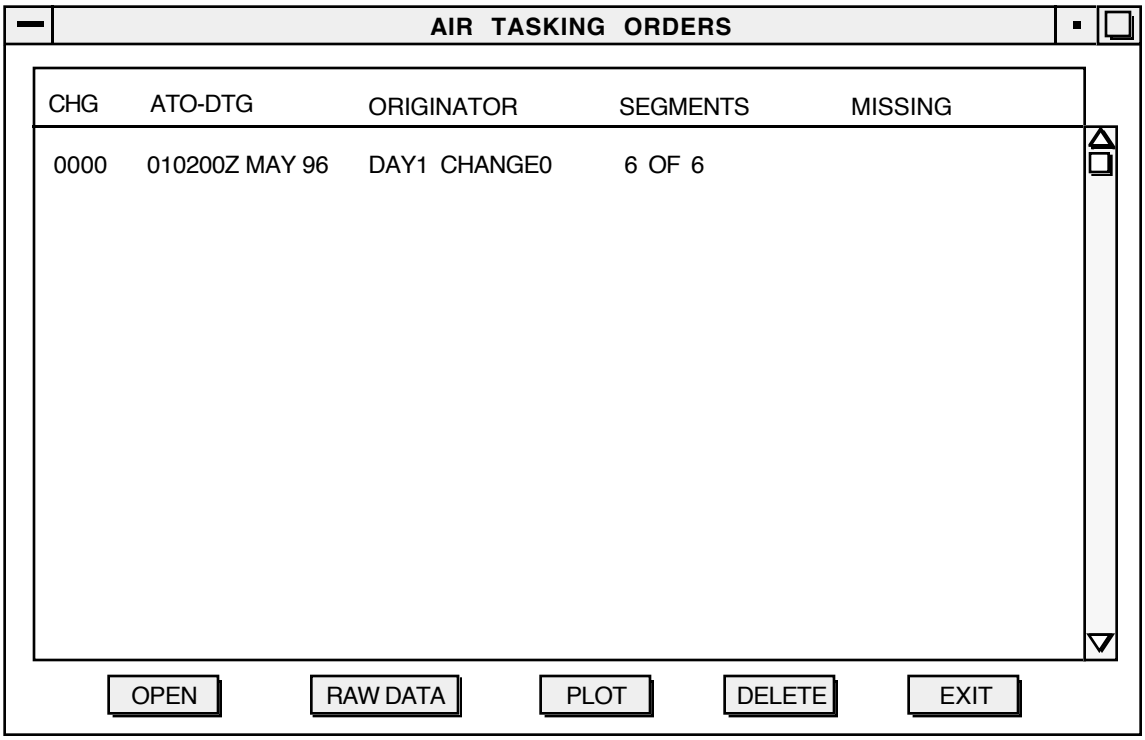
- Described in *ATO Processing*.

➤ REFRESH (pop-up option)—update the ATO SEGMENTS window.

➤ SELECT ALL (pop-up option)—selects all items in a list.

➤ UNSELECT ALL (pop-up option)—deselects all items in a list.

Click the OPEN button from ATO MESSAGE LOG window to open the AIR TASKING ORDERS window.



AIR TASKING ORDERS Window Actions

➤ DELETE—ATOs from the list.

1. If segmented ATOs are deleted, closely monitor incoming ATOs to make sure the system is not deleting and receiving simultaneously.
2. Before deleting, check to see if ATO segments are being received.
3. Select one or more ATOs from the AIR TASKING ORDERS window list.
4. Click DELETE and the selected ATOs are removed from the system.

➤ EXIT—close the window.

➤ OPEN—view and transmit segments for an ATO message.

1. Select an ATO from the scroll list.
2. Click OPEN to access the ATO SEGMENTS window.
   - View the segment header and raw data.
   - Transmit the segment.
   - Described in *ATO Segments*.

➤ PLOT—plot ATO targets on the tactical display, based on the missions that make up the ATO.

1. Select an ATO from the AIR TASKING ORDERS window.
2. Click PLOT to open the ATO PLOT window. Described in *Plot ATOs*.

➤ PLOT MERGE (pop-up option)—plot ATO targets on the tactical display, based on the mission that creates the merged ATO.

➤ PRINT (pop-up option)—the list of ATO messages.

1. Click PRINT to open the PRINTER window and identify where the information will be printed.
2. See *PRINT* in Appendix A, *Summary of Common Operations,* for details about the PRINTER window and the printer selection process.

➤ PROCESSING (pop-up option)—import or export ATO information between the ATO database within JMCIS and either of the following: DOS floppy disk or CTAPS server (import only).

- When ATO data is imported:

  The information is viewable from the AIR TASKING ORDERS window.

  A NIPS query can be generated for ATOs that lack lat/long target information.

  For each ATO message imported from CTAPS, the USER IN appears in the CHANNEL column of the INCOMING MESSAGE LOG window.

- Described in *ATO Processing*.

➤ QUERY NIPS (pop-up option)—not currently available.

➤ QUERY STATUS (pop-up option)— not currently available.

➤ RAW DATA—view an ATO message.

1. Select the message from the list in the AIR TASKING ORDERS window.
2. Click RAW DATA to open the VIEW ATO window.
3. The window shows the message raw data (described in *ATO Raw Data*.) and provides access to it by searching in one of two ways:
   - air tasks and task units
   - text strings

➤ REBUILD MERGE (pop-up option)—modify the merged ATO. Combines all changes currently stored by the system.

- ➤ REFRESH (pop-up option)—update the ATO SEGMENTS window.
- ➤ SELECT ALL (pop-up option)—selects all items in a list.
- ➤ UNSELECT ALL (pop-up option)—deselects all items in a list.
- ➤ VIEW MERGE (pop-up option)—view the raw data resulting from a merge. A merge is performed automatically whenever a new ATO message is received by the system, or when the REBUILD MERGE pop-up option is selected by the operator.
- ➤ XMIT (pop-up option)—transmit an ATO to another location.

1. Ensure that a communications channel is configured to send binary output (KERMIT or OTCIXS interface type), and that it is turned on.
   - See the COMMUNICATIONS option to configure and activate comms channels.
2. Select the ATO from the list in the AIR TASKING ORDERS window.
3. Click XMIT.
4. The HEADER EDIT window opens to start the transmission process.
   - Refer to *XMIT* (Appendix A, *Summary of Common Operations*, for information about the HEADER EDIT window and other transmission details.
   - If no valid channels exist when transmitting ATO segments, a warning window appears.

AIR TASKING ORDERS Window Fields

The following columns of information are shown for each ATO:

CHG
Change Number for the ATO. "0000" is the original ATO message.

ATO-DTG
Date-time group for the ATO.

If the month is missing from the MSGID line in the raw ATO message, the current system month is shown in this column.

ORIGINATOR
Unit name of the ATO message originator.

SEGMENTS

Number of segments in the ATO.

Since it is possible to receive some but not all segments in the ATO, this column shows the number of segments received and the total number of segments in the ATO.

MISSING

If some of the tasks (segments) are missing from an ATO message, this column provides information about the missing tasks.

If three or less tasks are missing, the segment numbers for all missing tasks are shown in the column.

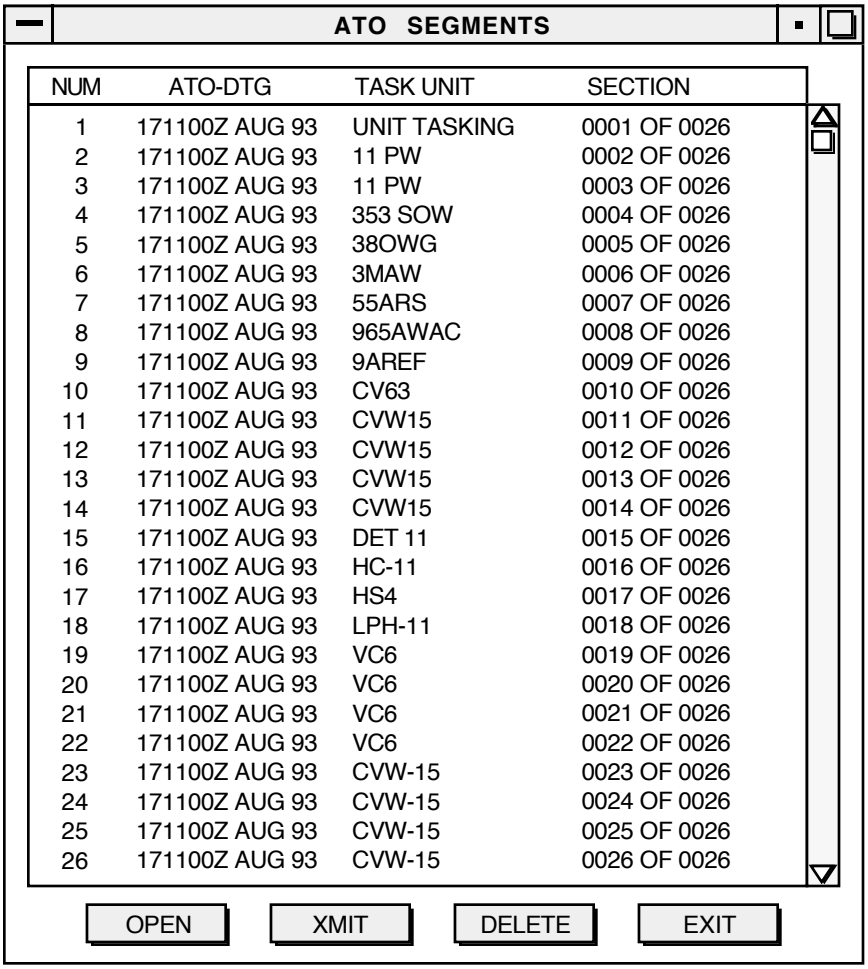
If more than three tasks are missing, the segment numbers of the first three missing tasks are shown, followed by three dots to indicate there are more tasks missing.

13.2.1 ATO SEGMENTS

Each segment of an ATO represents a specific air tasking assignment for a particular aircraft or squadron.

➤ To view the individual segments for an ATO:

1. Select the ATO from the list in the AIR TASKING ORDERS window.
2. Click OPEN to access the ATO SEGMENTS window.
3. The window lists all individual tasks (segments) in the ATO, current as of the time the window opens.
4. If segments are missing (for example, if only 10 of 26 appear in the list), use the REFRESH pop-up menu option to update the list periodically until all segments are received.



ATO SEGMENTS Window Actions

➤ DELETE—an ATO segment.

1. Select one or more segments from the ATO SEGMENTS window.
2. Click DELETE. The segments are removed from the system.

➤ EXIT—close the window.

➤ OPEN—view the header and raw data for a selected ATO segment.

1. Select the segment from the list in the ATO SEGMENTS window.
2. Click OPEN to display the VIEW ATO window.
3. To view more information in the ATO MSG BODY section:
   - PGUP or PGDN shows the next page of information in an upward or downward direction.
   - HOME shows the first page of data.

- END shows the last page of data.

4. Click EXIT to close the window.

➤ PRINT (pop-up option)—the list of ATO segments.

1. Click PRINT to open the JMCIS PRINTER window and identify where the information will be printed.
2. See *PRINT* in Appendix A, *Summary of Common Operations*, for details about the JMCIS PRINTER window and the printer selection process.

➤ REFRESH (pop-up option)—updates the window to include newly received ATO segments. Use this option when an incomplete ATO message appears in the ATO segment window.

➤ SELECT ALL (pop-up option)—selects all items in a list.

➤ UNSELECT ALL (pop-up option)—deselects all items in a list.

➤ XMIT—transmit one or more ATO segments.

1. Ensure that a communications channel is configured to send binary output (KERMIT or OTCIXS interface type), and that it is turned on.
   - Refer to the COMMUNICATIONS option from the COMMS menu to configure and activate comms channels.
2. Optional: Before transmitting a segment, view the message and its header (OPEN button from the ATO SEGMENTS window).
3. Select the segments to transmit from the list in the ATO SEGMENTS window.
4. Click XMIT.
5. The HEADER EDIT window opens to start the transmission process.
   - Refer to *XMIT* in Appendix A, *Summary of Common Operations*, for information about the HEADER EDIT window and other transmission details.
   - If no valid channels exist when transmitting ATO segments, a warning window appears.

ATO SEGMENTS Window Fields

The following columns of information are shown for each task:

NUM
Number of the individual task.

ATO-DTG
Date-time group for the ATO.

If the month is missing from the MSGID line in the raw ATO message, the current system month is shown in this column.

TASK UNIT
Particular aircraft or squadron assigned to perform this task.

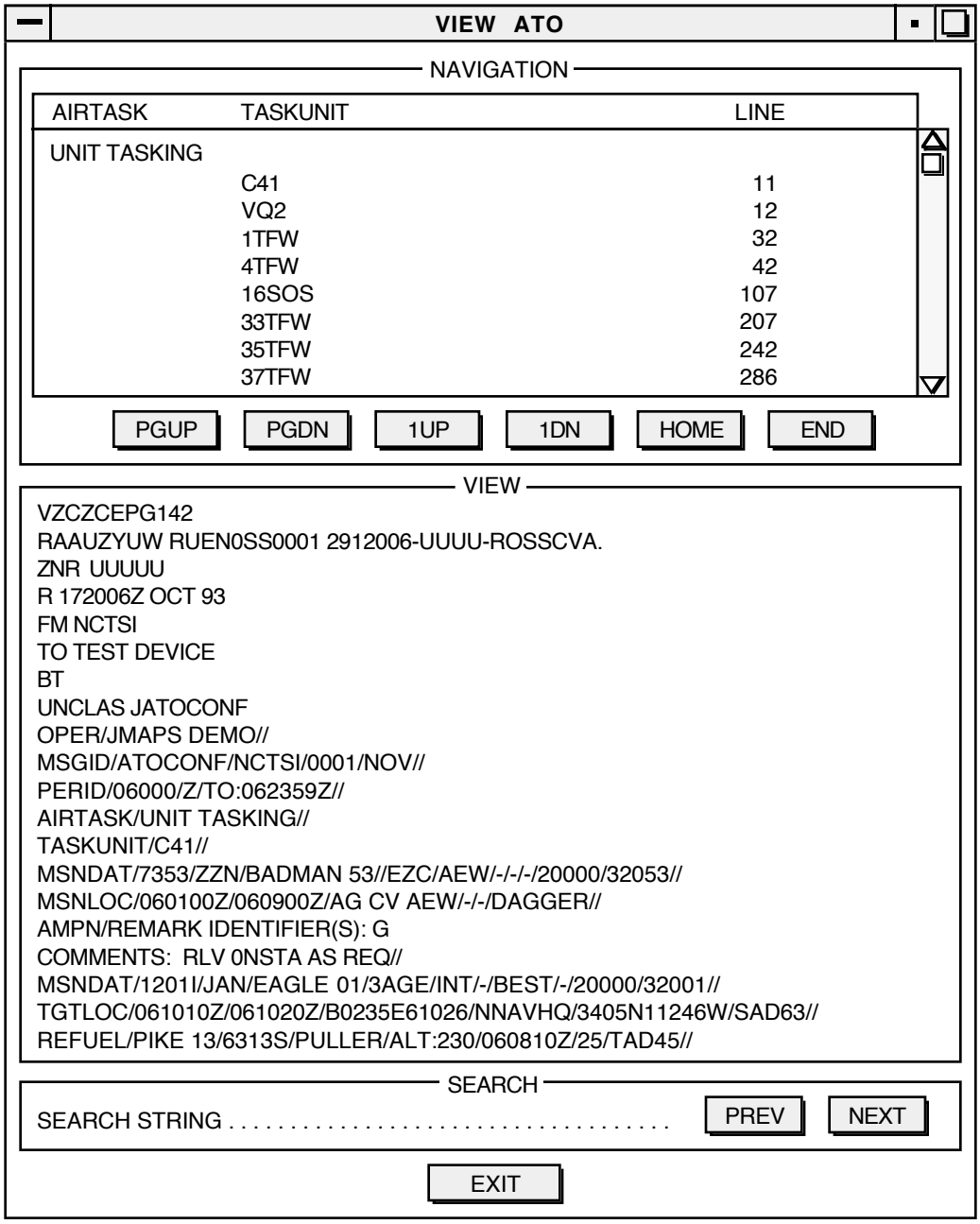
SECTION
Individual task number and the total number of tasks in the ATO.

13.2.2 ATO RAW DATA

This suboption shows the message raw data and provides access to it by searching in one of two ways:

- air tasks and task units
- text strings

Select the message from the list in the AIR TASKING ORDERS window and click RAW DATA to open the VIEW ATO window.



VIEW ATO Window Actions

➤ EXIT—close the window.

➤ Scroll—through the raw data in the VIEW Box.

- PGUP or PGDN shows the next page of information in an upward or downward direction.

- 1UP or 1DN—shows the next line of raw data in an upward or downward direction.
- HOME shows the first page of data.
- END shows the last page of data.

➤ Search—for an air task within the raw data.

1. Click on a task in the NAVIGATION Box.
2. That task unit displays as the first line in the VIEW Box.
3. If the information in the NAVIGATION Box does not match the data in the VIEW Box, use the BUILD NAVIGATION pop-up option to rebuild the air tasks and task units list.

➤ Search—for a text string within the raw data.

1. Enter a string of text in the SEARCH STRING field.
2. Click PREV or NEXT to begin the search backward or forward from the current text.
3. If the text string is found, it appears as the first line in the VIEW Box.
4. Continue to click PREV or NEXT to search for additional occurrences of the string.

VIEW ATO Window Fields

NAVIGATION Box

AIRTASK
Name of task.

TASKUNIT
Name of task unit.

LINE
Line number in the raw data where the task unit is located.

VIEW Box

Raw data for the ATO message.

SEARCH Box

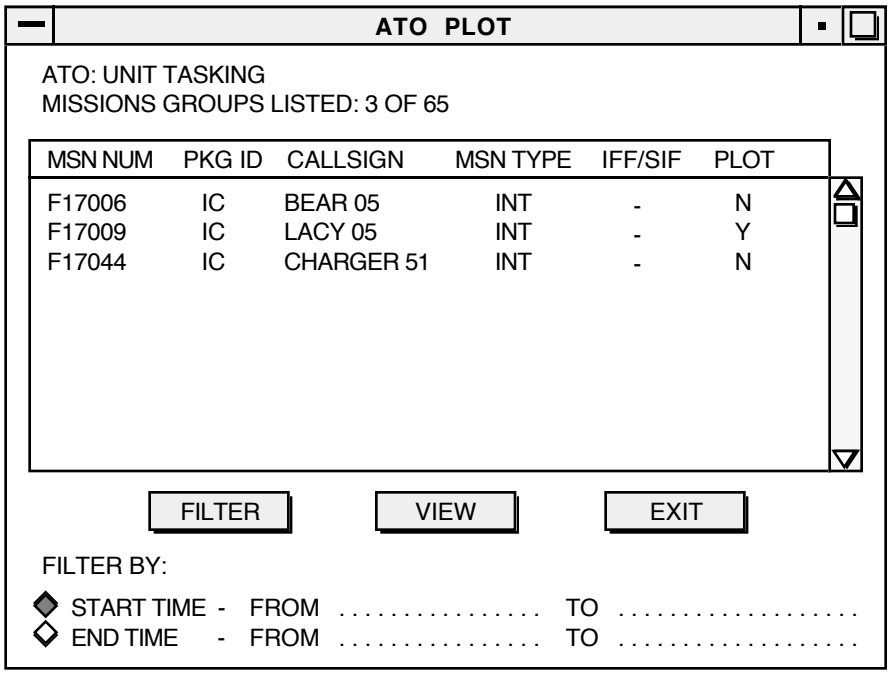
SEARCH STRING
String of text, used to search through raw data in the VIEW Box.

13.2.3 PLOT ATOS

ATOs are plotted, based upon the missions that make up the ATO. Each mission represents one part of an ATO task.

Select an ATO from the AIR TASKING ORDERS window and click PLOT to open the ATO PLOT window.

- When opened, the window presents a summary of all missions for the selected ATO.
- A filter may be defined for a specific time period, usually resulting in a subset of the missions.



ATO PLOT Window Actions

➤ ACTIVATE (pop-up option)—turns on target plotting for missions with targets that can be plotted. (Missions with targets that can be plotted contain a Y in the PLOT column.)

1. Select one or more missions from the list.
2. Choose the ACTIVATE pop-up option.
3. Targets for the selected missions (that have Y in the PLOT column) appear on the tactical display.

➤ DEACTIVATE (pop-up option)—turns off target plotting for missions.

1. Select one or more missions from the list.

2. Choose the DEACTIVATE pop-up option.
3. Targets for the selected missions disappear from the tactical display.

➤ EXIT—close the window.

➤ FILTER—list all missions within a specified time period.

1. Click either the START TIME or END TIME diamond knob and specify the time range in date-time group format.
2. Click FILTER. All missions within the time period appear in the scroll list. The number of missions is in the MISSIONS GROUPS LISTED field.
   - Missions in the list are *light blue* if their targets can be plotted.
   - Missions are *white* if their targets cannot be plotted.
3. A target symbol—a yellow circle with a crosshair—plots on the tactical display for each mission shown in light blue. The mission number appears next to the target symbol.

➤ HILITE ALL (pop-up option)—Highlights (on the tactical display) all missions shown in the ATO PLOT window.

➤ PRINT (pop-up option)—a summary of the selected task missions.

1. Select the missions and choose PRINT from the pop-up menu.
2. The PRINTER window opens to start the printing process. (Refer to Appendix A, *Summary of Common Operations*, for detailed information about printing.)

➤ SELECTED SUMMARY (pop-up option)—opens a summary window of all missions selected on the tactical display.

1. Select one or more missions on the display.
2. Choose the SELECTED SUMMARY pop-up option to open the ATO SELECTED MISSION SUMMARIES window.
   - The window lists all missions selected on the tactical display.
3. Select a mission from the list and click VIEW to see mission summary information.
4. If missions have been selected or deselected from the tactical display since this option was last chosen, click REFRESH to update the list to show the currently selected missions.
5. Click EXIT to return to the ATO PLOT window.

➤ TGTS TO TRACKS (pop-up option)—plots pairing lines from selected targets to tracks (platform or link) with matching IFF Mode 2 or IFF Mode 3 settings.

Note: For platform tracks, the PIF code is equivalent to IFF Mode 2 setting. Pairing lines will update (replot) automatically as track positions are updated.

1. Select one or more ATO targets on the display.
2. Choose the TGTS TO TRACKS pop-up option to plot the pairing lines.
3. To clear pairing lines, unselect targets and repeat step 2.

➤ TRACKS TO TGTS (pop-up option)—plots pairing lines from selected tracks (platform or link) to targets with matching IFF Mode 2 or IFF Mode 3 settings.

Note: For platform tracks, the PIF code is equivalent to IFF Mode 2 setting. Pairing lines will update (replot) automatically as track positions are updated.

1. Select one or more tracks on the display.
2. Choose the TRACKS TO TGTS pop-up option to plot the pairing lines.
3. To clear pairing lines, unselect tracks and repeat step 2.

➤ UNHILITE ALL (pop-up option)—unhighlights (on the tactical display) all missions shown in the ATO PLOT window.

➤ UNSELECT ALL (pop-up option)—deselects all previously selected missions.

➤ VIEW—show mission data for an individual mission.

1. Data for an individual mission can be obtained in one of two ways:
   - Select a mission from the list in the ATO PLOT window and click VIEW.
   - Double-click the mission symbol on the tactical display.
2. The VIEW MISSION DATA window opens. (Described in *View Mission Data for an Individual Mission*.)

ATO PLOT Window Fields

The following columns of information are shown for each mission:

MSN NUM
Mission number of the mission.

PKG ID
Strike or weapons load for the mission. For example, a particular type of bomb load.

CALLSIGN
Callsign for the individual aircraft assigned for this mission.

MSN TYPE
Code to represent the mission type.

IFF/SIF
Shows either the Identification Friend or Foe (IFF) code for the aircraft or its Selective Identification Feature (SIF). Up to five IFFs or SIFs may be listed.

PLOT
Shows Y (yes) for mission targets that can be plotted on the tactical display.

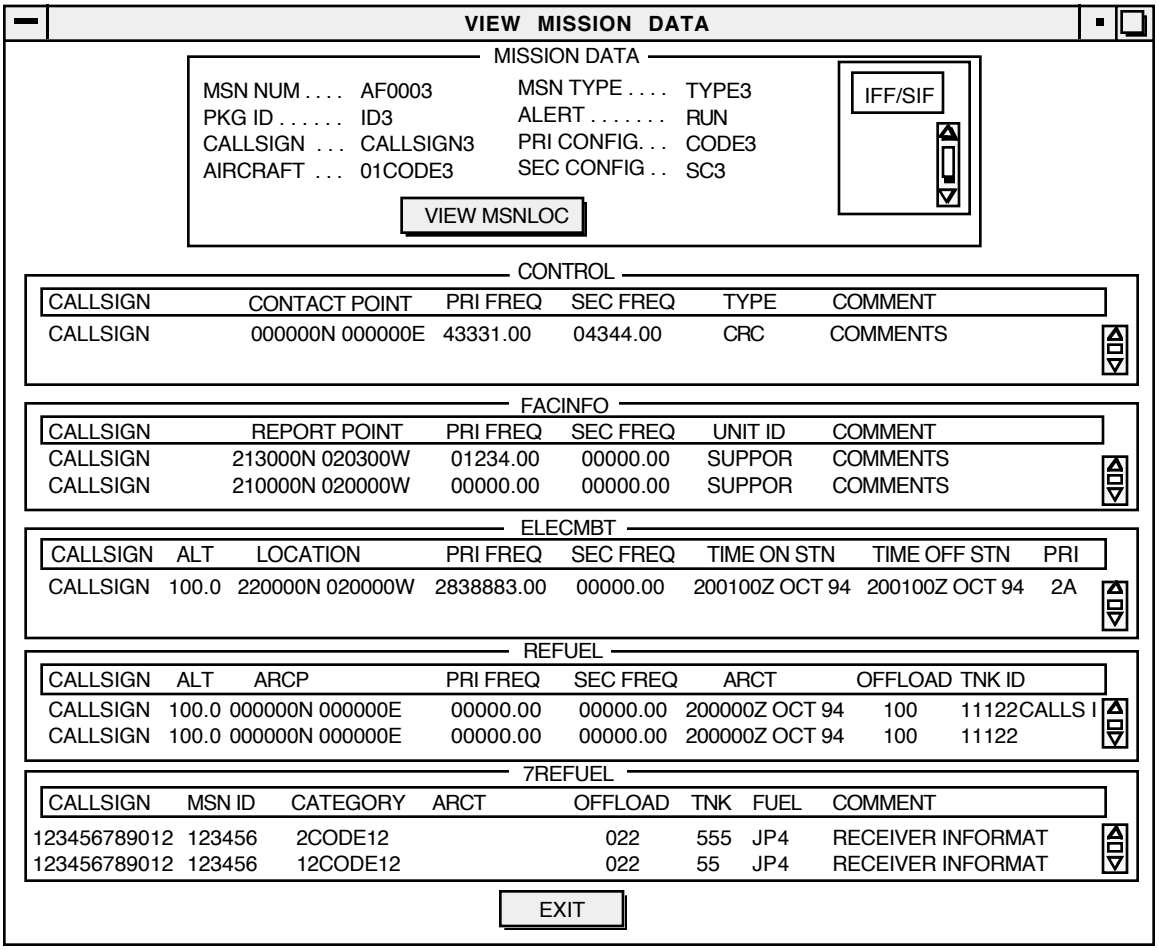
Shows N (no) if there is no target, or the target cannot be plotted.

View Mission Data for an Individual Mission

Data for an individual mission can be obtained in one of two ways:

- Select a mission from the list in the ATO PLOT window and click VIEW.
- Double-click the mission symbol on the tactical display.

The mission data appears in the VIEW MISSION DATA window. The initial VIEW MISSION DATA window is the same, regardless of mission type.



VIEW MISSION DATA Window Actions—Initial View

➤ CENTER MAP (pop-up option)—center the tactical display around a selected mission location at a map width of 100 NM. This option can be used only for plottable missions (those missions that appear in light blue in the ATO PLOT window's scroll list).

➤ EXIT—close the window.

➤ VIEW xxx—information about a *specific* mission type:

1. The button in the MISSION DATA Box has a unique label for each type of mission:
   - patrolling mission: VIEW MSNLOC
   - targeting mission: VIEW TGTLOC
   - reconnaissance mission: VIEW RECDATA

2. Click the button to open a VIEW MISSION DATA window specific to the type of mission.
   - The window is view-only and cannot be edited.
   - Note: If the month is missing from the MSGID line in raw ATO messages, the current month appears in the VIEW MISSION DATA window.
3. For each type of mission, the window actions are identical:
   - PREV—view data for the previous patrol area (if the mission specifies more than one patrol area).
   - NEXT—view the data for the next patrol area.
   - OK—close the window.
4. The window fields are unique to each type of mission and are described in the following sections:
   - *Patrolling Missions—VIEW MSNLOC*.
   - *Targeting Missions—VIEW TGTLOC*.
   - *Reconnaissance Missions—VIEW RECDATA*.
5. Combinations of information may be presented.
   - For example, if the mission specifies patrol areas *and* reconnaissance data, the VIEW MISSION DATA window contains a MISSION DATA Box and a RECON DATA Box.
   - The fields in each box are identical to those for the individual cases described in step 4.

VIEW MISSION DATA Window Fields—Initial View

The appearance of the initial VIEW MISSION DATA window is the same, regardless of mission type, and contains the following boxes of information:

- MISSION DATA
- CONTROL (controlling agency)
- FACINFO (Forward Air Controller)
- ELECMBT (electric combat aircraft)
- REFUEL (tanker aircraft)
- 7REFUEL (receiver aircraft)

MISSION DATA Box

MSN NUM
Mission number.

PKG ID
Strike or weapons load for the mission. For example, a particular type of bomb load.

CALLSIGN
Callsign for the individual aircraft assigned for this mission.

AIRCRAFT
Number and type of aircraft required for this mission.

MSN TYPE
Code to represent the mission type.

ALERT
Alert status code for the mission. Specifies the necessary readiness level of the aircraft for this mission.

PRI CONFIG
Primary configuration code for the mission aircraft.

SEC CONFIG
Secondary configuration code for the mission aircraft.

IFF/SIF
Shows either the Identification Friend or Foe (IFF) code for the aircraft or its Selective Identification Feature (SIF). Multiple IFFs or SIFs may be shown.

CONTROL Box

CALLSIGN
Callsign of the controlling agency that the mission aircraft should contact.

CONTACT POINT
Location of the point at which the aircraft would contact the controlling agency.

PRI FREQ
Primary frequency, in megahertz (MHZ).

SEC FREQ
Secondary frequency, in MHZ.

TYPE
Code for the type of controlling agency that the mission aircraft should contact.

COMMENT
Comments concerning the controlling agency or report-in progress.

FACINFO Box

CALLSIGN
Callsign of the Forward Air Controller (FAC) to be contacted.

REPORT POINT
Location of the point at which the aircraft should contact the FAC.

PRI FREQ
Primary frequency, in MHZ.

SEC FREQ
Secondary frequency, in MHZ.

UNIT ID
Ground unit being supported by the FAC.

COMMENT
Comments concerning the FAC or the report-in procedures.

ELECMBT Box

CALLSIGN
Callsign of the electric combat aircraft.

ALT
Altitude, in hundreds of feet.

LOCATION
Location of the electric combat aircraft's mission.

PRI FREQ
Primary frequency, in MHZ.

SEC FREQ
Secondary frequency, in MHZ.

TIME ON STN
On-station time. (Note: If the month is missing from the MSGID line in the raw ATO message, the current system month is in this column.)

TIME OFF STN
Off-station time. (Note: If the month is missing from the MSGID line in the raw ATO message, the current system month is in this column.)

PRI
Priority of the mission.

REFUEL Box

CALLSIGN
Callsign of the tanker aircraft.

ALT
Altitude, in hundreds of feet.

ARCP
Air Refueling Control Point.

PRI FREQ
Primary frequency, in MHZ.

SEC FREQ
Secondary frequency, in MHZ.

ARCT
Air Refueling Control Time. (Note: If the month is missing from the MSGID line in the raw ATO message, the current system month is in this column.)

OFFLOAD
Total amount of fuel to be offloaded, in thousands of pounds. Note: This total applies to the flight if the mission involves more than one aircraft.

TNK ID
Mission number assigned to the tanker aircraft.

7REFUEL Box

CALLSIGN
Callsign of the receiver aircraft.

MSN ID
Mission number of the receiver aircraft.

CATEGORY
Number and type of the receiver aircraft.

ARCT
Air Refueling Control Time. (Note: If the month is missing from the MSGID line in the raw ATO message, the current system month is in this column.)

OFFLOAD
Total amount of fuel to be offloaded, in thousands of pounds. Note: This total applies to the flight if the mission involves more than one aircraft.

TNK
Tanker within the flight of tankers from which the receiver is to obtain fuel.

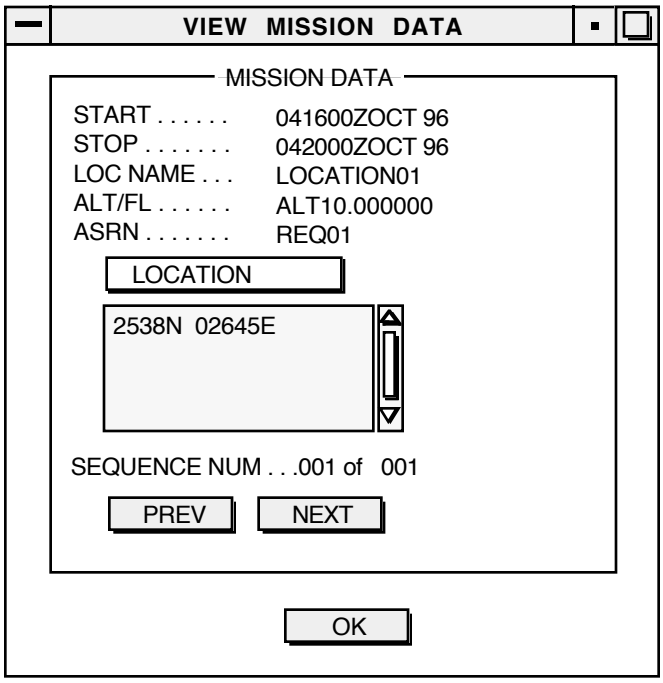
FUEL
Code for the type of fuel.

COMMENT
Additional information about the receiver.

Patrolling Missions—VIEW MSNLOC

If the mission involves patrolling a particular area, the VIEW MISSION DATA window contains a VIEW MSNLOC button.

Click VIEW MSNLOC to access patrolling information for the location.



VIEW MISSION DATA Window Fields—MISSION DATA

START
Beginning DTG for the mission.

STOP
Ending DTG for the mission.

LOC NAME
Mission location name.

ALT/FL
Altitude of the mission (in hundreds of feet).

ASRN
Air Support Request Number to be satisfied by the mission.

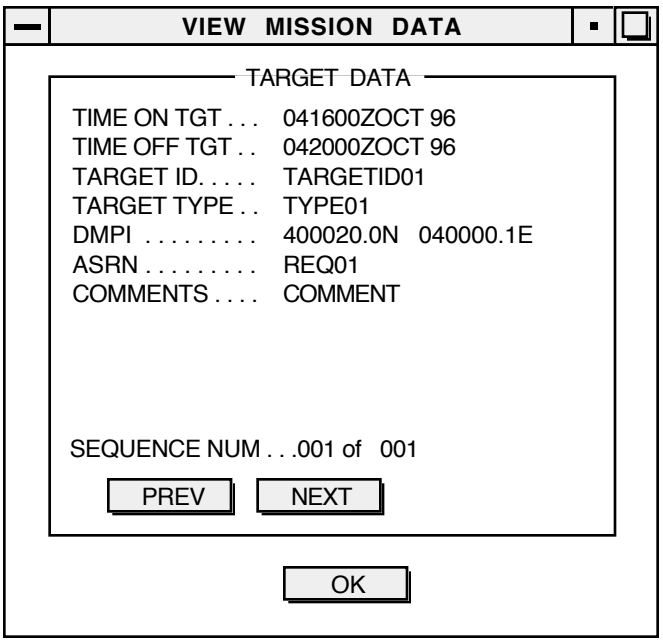
LOCATION
Lat/long position of each mission destination. Multiple lat/long positions may be listed in the scroll box.

SEQUENCE NUM
An individual mission may specify more than one patrol area. This field shows the number of the patrol area whose data is currently shown in the MISSION LOCATION Box, followed by the total number of patrol areas specified for the mission.

Targeting Missions—VIEW TGTLOC

If the mission specifies a particular target, the VIEW MISSION DATA window contains a VIEW TGTLOC button.

Click VIEW TGTLOC to access targeting information.



VIEW MISSION DATA Window Fields—TARGET DATA

TIME ON TGT
DTG when the aircraft should be over the target.

TIME OFF TGT
DTG when the aircraft should be finished with the operation and should be leaving the target area.

TARGET ID
Identification of the target (oil tanker, airfield, etc.).

TARGET TYPE
Specific target for this mission. For example, the TARGET ID field might identify a particular airfield, while the TARGET TYPE field might identify a particular aircraft or runway as the specific target.

DMPI
Lat/long value for the Desired Mean Point of Impact (DMPI).

ASRN
Air Support Request Number to be satisfied by the mission.

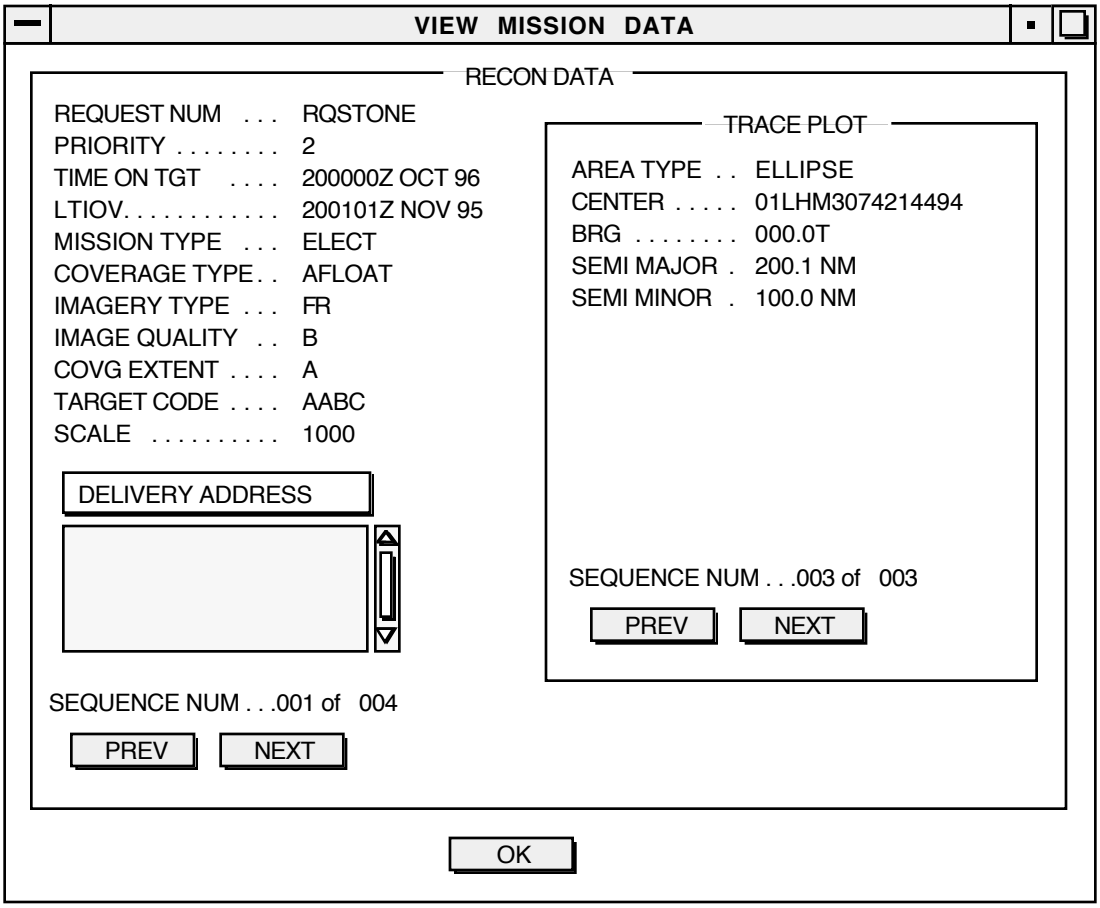
COMMENTS
Comments about the target.

SEQUENCE NUM
There may be multiple targets within a mission. This field shows the number of the current target followed by the total number of targets in the mission.

Reconnaissance Missions—VIEW RECON

If the mission is a reconnaissance (intelligence gathering) mission, the VIEW MISSION DATA window contains a VIEW RECON button.

Click VIEW RECON to access reconnaissance information.



The MISSION DATA window for reconnaissance missions contains a RECON DATA Box and a TRACE PLOT Box.

1. The RECON DATA Box shows fields for the information that is to be gathered.
2. When either PREV or NEXT is clicked in the RECON DATA Box, the first recon area for the current recon assignment automatically appears in the TRACE PLOT Box.
3. When the data for a particular recon area is shown in the TRACE PLOT Box, this recon area is also plotted on the tactical display.

RECON DATA Box

REQUEST NUM
Request number to identify this assignment.

PRIORITY
Priority for the mission. If there is more than one mission in this task, this number determines the relative importance of each mission.

TIME ON TGT
Time on Target (TOT) DTG when the aircraft should be over the reconnaissance target. (Note: If the month is missing from the MSGID line in the raw ATO message, the current system month is in this field.)

LTIOV
Latest Time Information of Value (LTIOV) is the date and time after which information concerning the mission would no longer be timely enough to be useful.

MISSION TYPE
General type of reconnaissance that is tasked.

COVERAGE TYPE
Specific type of coverage desired.

IMAGERY TYPE
Sensor for the mission tasking.

IMAGE QUALITY
Specific type of image required.

COVG EXTENT
Specific type of coverage required.

TARGET CODE
Code for the type of information desired to be reported.

SCALE
Scale of imagery, if a specific image scale is desired.

DELIVERY ADDR
Delivery address for the information. Multiple delivery addresses may be listed.

SEQUENCE NUM
The number of the current assignment, followed by the total number of assignments in the mission. There may be multiple recon assignments within a mission.

TRACE PLOT Box

AREA TYPE
Type of area for reconnaissance (corridor, point, etc.). The additional fields in the TRACE PLOT Box vary, depending on the area type. These fields describe the area in detail, giving appropriate lat/long points and area sizes.

SEQUENCE NUM

Within the TRACE PLOT Box, shows the number of the current recon area, followed by the total number of recon areas in the assignment. There may be multiple recon areas.

13.2.4 ATO PROCESSING

Use the PROCESSING pop-up option to import or export ATO information between the ATO database within JMCIS and either of the following:

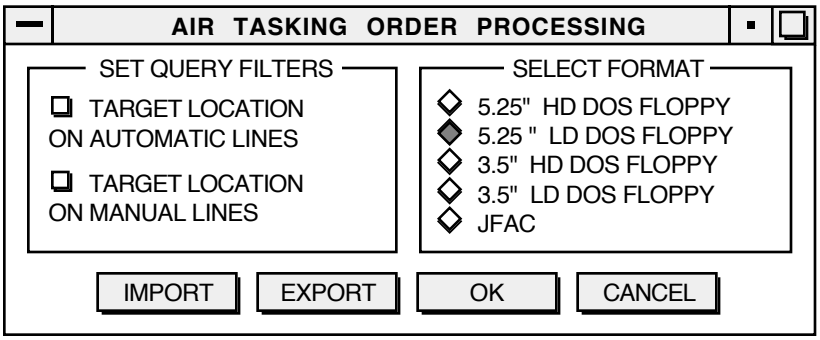
a DOS floppy disk

a CTAPS server (import only)

When ATO data is imported:

- The information is viewable from the AIR TASKING ORDERS window.
- A NIPS query can be generated for ATOs that lack lat/long target information.
- For each ATO message imported from CTAPS, the USER IN appears in the CHANNEL column of the INCOMING MESSAGE LOG window.

Select the PROCESSING pop-up option in the AIR TASKING ORDERS window to open the AIR TASKING ORDER PROCESSING window.



➤ How to export ATO data from the JMCIS ATO database to a DOS floppy:

1. Insert a floppy disk into the proper disk drive.
2. From the MISC menu, select PREPARE FLOPPY. See *PREPARE FLOPPY* in Chapter 8, for details on how to use this option.

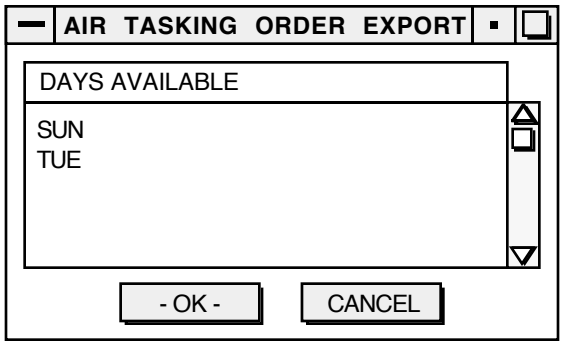
   Note: When the floppy drive has been prepared, the drive will not be available for use with any other option, such as ARCHIVE/RESTORE.

   - On a HP workstation, PREPARE FLOPPY needs to be run only if the floppy drive has never been used.

- On a Solaris workstation, PREPARE FLOPPY needs to be run every time a floppy is inserted.

3. When the floppy drive has been prepared, in the AIR TASKING ORDER PROCESSING window, click the diamond knob for the type of floppy disk size and density.
4. Click EXPORT to open the AIR TASKING ORDER EXPORT window, which shows the ATO files in the ATO database.
5. Select a file to export and click OK, or click CANCEL to discard the process.
6. If no errors occur, a message indicates the ATO has been exported.
7. From the MISC menu, select EJECT FLOPPY. See *EJECT FLOPPY* in Chapter 8, for details on how to use this option.

   Note: When the EJECT FLOPPY option is used, the floppy drive is released from the ATO process and is now available for use by other options.



➤ To import ATO data from a DOS floppy disk into the ATO database:

1. Insert the floppy disk into the appropriate floppy disk drive.
2. From the MISC menu, select PREPARE FLOPPY. See *PREPARE FLOPPY* in Chapter 8, for details on how to use this option.

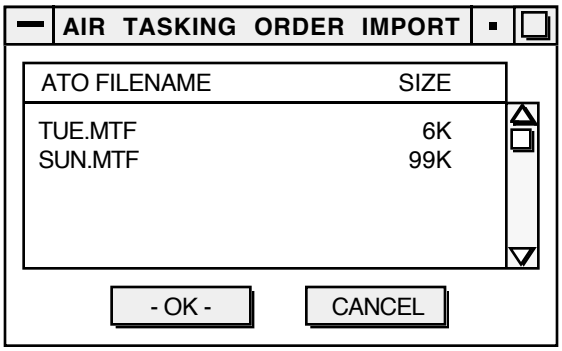
   Note: When the floppy drive has been prepared, the drive will not be available for use with any other option, such as ARCHIVE/RESTORE.

   - On a HP workstation, PREPARE FLOPPY needs to be run only if the floppy drive has never been used.
   - On a Solaris workstation, PREPARE FLOPPY needs to be run every time a floppy is inserted.

3. When the floppy drive has been prepared, if NIPS queries should be automatically generated, click the TARGET LOCATION ON MANUAL LINES checkbox in the AIR TASKING ORDER PROCESSING window.
4. Click the diamond knob for the type of floppy disk size and density.
5. Click IMPORT to open the AIR TASKING ORDER IMPORT window.

6. Select a file to import and click OK, or click CANCEL to discard the import process.
7. If no errors occur, a message indicates the ATO is being imported.
8. When the import process is finished, the ATO file is viewable from the AIR TASKING ORDERS window.
9. From the MISC menu, select EJECT FLOPPY. See *EJECT FLOPPY* in Chapter 8, for details on how to use this option.

   Note: When the EJECT FLOPPY option is used, the floppy drive is released from the ATO process and is now available for use by other options.



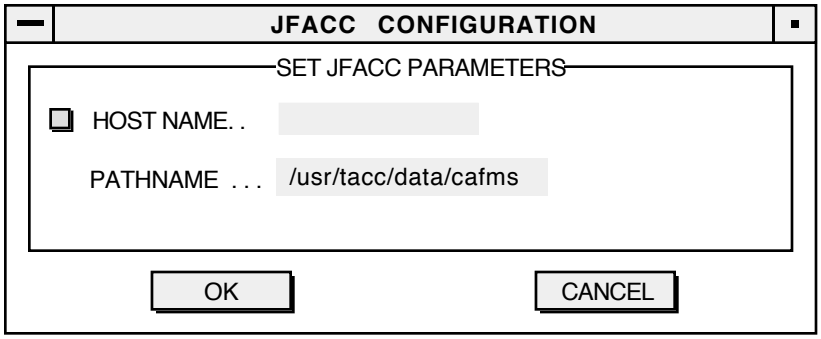
➤ To import ATO data from a CTAPS server into the ATO database:

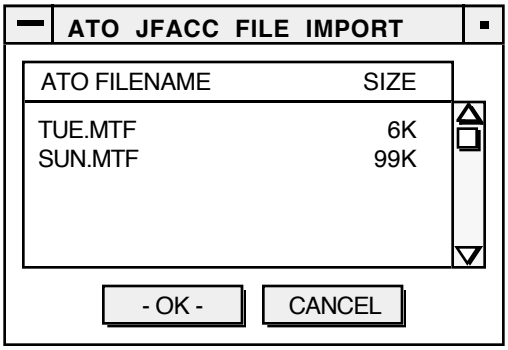
1. Click the JFACC diamond knob in the AIR TASKING ORDER PROCESSING window.
2. The JFACC CONFIGURATION window (shown below) opens to configure the CTAPS Server Parameters. (Note: This step does not import the files.)
3. Click OK to return to the AIR TASKING ORDER PROCESSING window, or click CANCEL to discard changed parameters.
4. In the AIR TASKING ORDER PROCESSING window, click the TARGET LOCATION ON AUTOMATIC LINES checkbox for NIPS queries to be automatically generated.
5. To set the JFACC parameters and import the file:
   a. Although the host is usually the CTAPS server on your LAN, another host can be specified. Enter the host name, or click the list box preceding the HOSTNAME field to select from a list of all workstations on the network.
   b. A default directory path (/usr/tacc/data/cafms) is shown in the PATHNAME field. Use this path name or enter the directory path from which to import ATO data.

c. Select SET DEFAULT from the window pop-up menu to set the entries shown in the HOSTNAME and PATHNAME fields as the JFACC CONFIGURATION window's default values.

6. Click OK. The ATO JFACC FILE IMPORT window opens.
7. Select a file to import and click OK, or click CANCEL to discard the request.
8. If no errors occur, a message appears, stating "IMPORT COMPLETE. STARTING PROCESSING ... PLEASE PRESS OK.", indicating that the ATO is being imported.
9. Click OK in the warning window to dismiss it and return to the AIR TASKING ORDER PROCESSING window.
10. In the AIR TASKING ORDER PROCESSING window, click OK to continue with the processing. The ATO MESSAGE LOG window appears.
11. In the ATO MESSAGE LOG window, use the REFRESH pop-menu option to refresh the window and display the new ATO.

    Importing an ATO may take some time, so the first refresh may not show the new ATO. Continue refreshing periodically until the ATO is listed in the ATO MESSAGE LOG.
12. When the import process is finished, the ATO file can be viewed from the AIR TASKING ORDERS window.





13.3 INPUT MSG FILTERS

Use the INPUT MSG FILTERS option to filter out incoming messages.

How the INPUT MSG FILTERS option works:

1. When a message passes the tests of *at least one* filter in a priority group, it is locked into the priority level of that group.
   a. When the message enters the system, it passes through all the filters with the highest priority.
   b. If it does not pass the tests for any of the filters of the highest priority group, the message passes through all the filters of the next highest priority group, and so on.
2. If the message doesn't pass the tests of any of the active filters in the system, the message is ACCEPTED AND DECODED.
3. If the message passes the tests of *only one* of the filters in the priority group, the action entered for that filter will be taken.
4. If the incoming message passes the tests of more than one of the filters in a priority group, the action taken will be weighted in the following order:
   a. ACCEPT AND DECODE
   b. ACCEPT AND NOT DECODE
   c. IGNORE
5. Thus, if the message passes the tests for two filters of the same priority group, and the action for one is to ACCEPT AND DECODE and the action for the other is IGNORE, the message is ACCEPTED AND DECODED.

Select the INPUT MSG FILTERS option from the FOTC/BCST pull-down menu to open the MESSAGE INPUT FILTER window (Figure13.3-1).

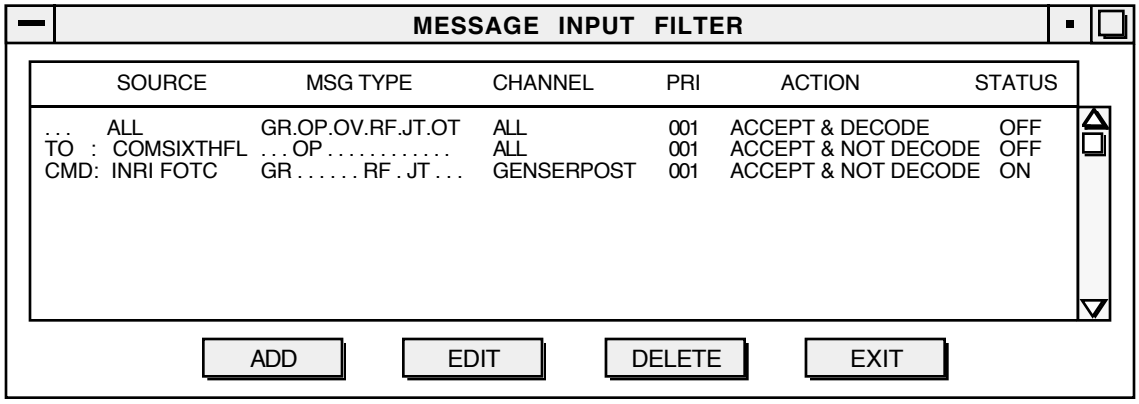


Figure13.3-1 Message Input Filter Window

The MESSAGE INPUT FILTER window lists all incoming message filters that are currently defined in the system. Active filters appear in light blue, inactive filters appear in white.

MESSAGE INPUT FILTER Window Buttons

ADD—an input filter. Described in *Add a New Incoming Message Filter*.

EDIT—an input filter.

1. Select the filter from the MESSAGE INPUT FILTER window.
2. Click EDIT to open the EDIT INPUT FILTER window.
3. Make changes to the filter. Options to edit a filter are the same as those to add a filter.
4. Click OK to save the changes, or click CANCEL to discard them.

DELETE—an input filter.

1. Select one or more filters from the MESSAGE INPUT FILTER window.
2. Click DELETE. The filters are removed from the system.

EXIT—the option and close the window. Any filters that are turned on will be used for future incoming messages.

MESSAGE INPUT FILTER Window Pop-up Menu Options

Pop-up menu options (described in *MESSAGE INPUT FILTER Pop-up Menu*): ACTIVATE, ADD, DEACTIVATE, DELETE, EDIT, EXIT, SELECT ALL, and UNSELECT ALL.

MESSAGE INPUT FILTER Window Fields

The columns shown for each of the filters:

SOURCE
Shows the message source type defined for the filter, as well as the specific source. Source types include:

TO	=	Only messages sent to a specified station.
FROM	=	Only messages sent from a specified station.
COMMAND	=	Only messages sent from a specified command.
SID	=	Only messages sent from a specified SID number.
ALL	=	Messages from any source type.

MSG TYPE

Shows codes for the following types of incoming messages that are included in this filter.

ATOMTF	=	Air Tasking Order Message Text Format
BATHY	=	Bathythermal Data
BINARYM	=	Binary Message
CASREP	=	Casualty Report
CHGREP	=	Change Report
COMSPOT	=	Communications Spot
CRITIC	=	Critic
FOTCSR	=	FOTC SITREP
FWHISKY	=	Four Whiskey
GENADMI	=	General Administration
GLDOPNT	=	Gold Opnote
GLDOVLY	=	Gold Overlays
GOLDRPT	=	Gold Report
GRIDFLD	=	Gridded Field
INDIGO	=	Indigo Report
JMIEOPN	=	JMIE Opnote
JMIERPT	=	JMIE Report
JOTOVLY	=	JOTS Overlays
JUNITRP	=	Unit Report
LOCATOR	=	LOCATOR Message
MARREP	=	MARREP Data
MDUMSG	=	MDU Message
MFUMSG	=	MFU Message
MOVORD	=	Move Order
MOVREP	=	Move Report
MUNIT	=	M-Unit Data
NUNIT	=	N-Unit Data
OBREP	=	Order of Battle
OPSKED	=	Operations Schedule
OTHER	=	Other

PIMTRCK = PIM Track
RAINFRM = RAINFORM Data
RCSATSM = Rec Sat Sum
RDSND = Radio Sound
RTHRSRQ = ROTHR Status Request
RTHRSTA = ROTHR Status
RTHRTAS = ROTHR Task
SATCHAR = Satellite Charlie Elements
SATVULN = Satellite Vulnerability Message
SCNKILO = Screen Kilo
SITREP = USMTF Situation Report
SMD1MSG = Special Mission Data 1
SMD2MSG = Special Mission Data 2
SMD3MSG = Special Mission Data 3
SUBAMSG = Submarine PIM track
SUBAREQ = Submarine Area Message
SUBNOTE = Submarine Opnote
SUBNREQ = Submarine Request
TACELNT = TACELINT Message
TACREP = Tactical Report
TURQUOI = Turquoise Report
WEX = Weather

CHANNEL
Communications channel used for this filter.

PRI
Priority level of this filter; from 1 to 10, with 1 being the highest.

ACTION
Action to be taken by this filter:

ACCEPT AND DECODE

ACCEPT AND NOT DECODE

IGNORE

STATUS
Status of the filter. If active, shows ON; if inactive, shows OFF.

13.3.1 ADD A NEW INCOMING MESSAGE FILTER

Click ADD to open the ADD INPUT FILTER window (Figure 13.3-2).

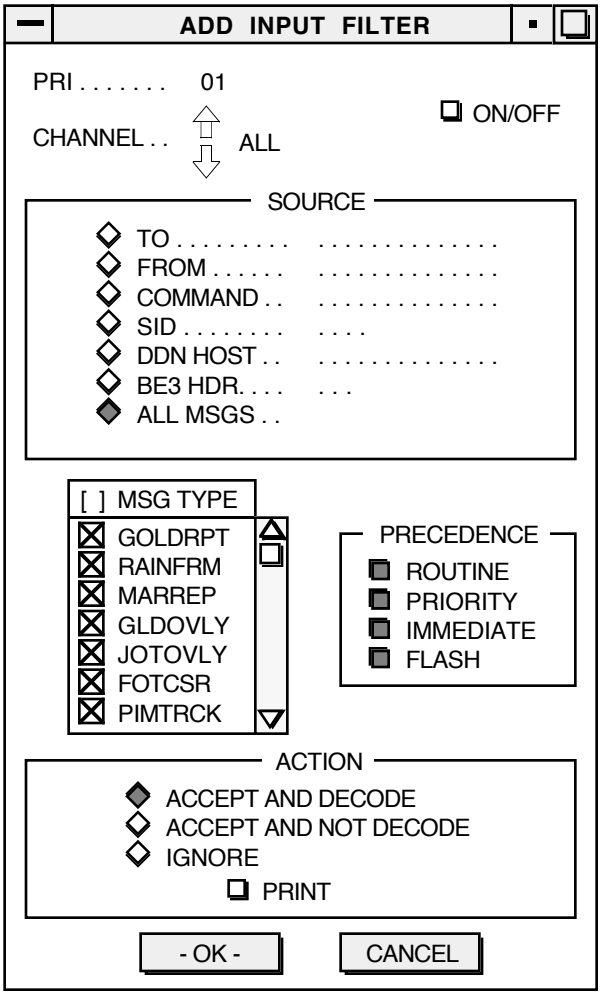


Figure 13.3-2 Add Input Filter Window

The ADD INPUT FILTER window contains items to filter out messages. These items are separated into different groups—a general information area, SOURCE box, MSG TYPE box, PRECEDENCE box, and an ACTION box. Each of these groups contain related items that can be used to help filter incoming messages.

1. Specify the filter criteria—set the checkboxes and diamond knobs, and enter field values.
2. Click OK to accept the settings, or click CANCEL to discard them.
3. If OK is clicked, the filter is listed in the MESSAGE INPUT FILTER window.

13.3.1.1 General Information Area

There are two fields, PRI and CHANNEL, and an ON/OFF checkbox:

PRI

Enter a priority number for the filter. Priority numbers can be from 01 to 10, with 01 being the highest.

1) When a message enters the system, it passes through all the filters with the highest priority. If it passes the tests of *at least one* of these filters, it is locked into that priority group.

2) If it does not pass the tests for any of the filters of the highest priority group, the message passes through all the filters of the next highest priority group, and so on.

3) If the incoming message passes the tests of more than one of the filters within the priority group, the action taken will be weighted in the following order:

ACCEPT AND DECODE

ACCEPT AND NOT DECODE

IGNORE

Thus, if the message passes the tests for two filters of the same priority group, and the action for one is to ACCEPT AND DECODE and the action for the other is IGNORE, the message is ACCEPTED AND DECODED.

The priority level is further explained in the examples provided in the *Input Message Filters Examples* section.

CHANNEL

Set the communications channel for the filter. The label on the select button shows the name of the current channel.

To choose a different channel:

1) Click the select button to show a list of other channels.

2) Select the channel from the displayed list.

ON/OFF

Click the checkbox to turn this filter on, or leave blank to turn it off. The filter is applied to incoming messages only if it is ON.

13.3.1.2 SOURCE Box

The SOURCE box contains a series of diamond knobs and associated fields. The filter includes *only those messages* of the selected source type, with the specified value. Enter specific information (name or number) in the following fields:

TO
Messages sent to a specified station.

FROM
Messages sent from a specified station.

COMMAND
Messages sent from a specified command.

SID
Messages sent from a specified SID.

DDN HOST
Messages sent from a specified DDN host.

BE3 HDR
This option is not yet operational. When activated in a future release, include messages for the specified BE3 input filter type.

ALL MSGS
Messages from any source. (Field value not required.)

13.3.1.3 MSG TYPE Box

The MSG TYPE box contains a scroll list of checkboxes for the types of messages that can be filtered. Click the checkboxes for any or all message types to include in the filter.

13.3.1.4 PRECEDENCE Box

The PRECEDENCE box contains checkboxes for the message precedence levels that can be filtered. Precedence levels include ROUTINE, PRIORITY, IMMEDIATE, and FLASH. Click the checkboxes for any or all precedence levels to include in the filter.

13.3.1.5 ACTION Box

The ACTION box contains diamond knobs to define the action taken with the filter being defined. Click the appropriate diamond knob for the messages that pass through this filter:

ACCEPT AND DECODE

Accept and decode all messages that fit the defined constraints.

The default action of JMCIS is to accept and decode incoming messages, so this diamond knob should generally be used only to override other filters that are set.

For example, if there is a filter set to discard overlays use this diamond knob to accept and decode overlays that come in on a particular channel.

ACCEPT AND NOT DECODE

Accept, but do not decode messages that fit the defined constraints.

When a message is accepted but not decoded, it can be viewed and decoded later with the INCOMING MSG LOG option.

IGNORE

Ignore all messages that fit the defined constraints. When a message is ignored, it is discarded and cannot be viewed or decoded later.

PRINT Checkbox

Click ON to automatically send the incoming track message to the printer.

13.3.2 MESSAGE INPUT FILTER POP-UP MENU

In addition to the options described in the *Summary of Common Operations* (SELECT ALL, UNSELECT ALL, ADD, EDIT, DELETE, and EXIT), the MESSAGE INPUT FILTER pop-up menu also includes:

ACTIVATE

Turn on all selected filters; performs the same function as the ON/OFF checkbox from the ADD INPUT FILTER window.

DEACTIVATE

Turn off all selected filters; performs the same function as leaving the ON/OFF checkbox blank in the ADD INPUT FILTER window.

13.3.3 INPUT MESSAGE FILTERS EXAMPLES

The following "what-if" examples illustrate the effects of using the Input Message Filters option on incoming messages.

Example 1

What if you do not want any messages coming in on the OTCIXS channel to be accepted into the system?

Enter the following settings for a new Input Message Filter:

Channel: OTCIXS

Source: All Msgs

Msg Type: All boxes checked

Precedence: All boxes checked

Action: Ignore

The result: Any message received on the OTCIXS channel will be discarded; all other messages will be accepted by the system.

Example 2

What if you want to discard all messages coming in on the OTCIXS channel *except* OPNOTES, which you wish to accept and decode?

Enter the following settings for a new Input Message Filter:

Channel: OTCIXS

Source: All Msgs

Msg Type: Check all boxes except the OPNOTES box

Precedence: All boxes checked

Action: Ignore

The result: Any message received on the OTCIXS channel *except* OPNOTES will be discarded. All other messages, including OTCIXS OPNOTE messages will be accepted and decoded.

Example 3

What if you want to discard all messages coming in on the OTCIXS channel except for messages coming in under the following conditions?

1) Accept and not decode OPNOTES from SID 0224 (Highest priority).

2) Accept and decode OTCIXS messages from SID 0224 (2nd highest priority).

Three different Input Message Filters must be set to satisfy the conditions listed in this example:

Filter 1

Priority: 01

Channel: All

Source: SID . . . 0224

Msg Type: Check only OPNOTES box

Precedence: All boxes checked

Action: Accept and Not Decode

Filter 2

Priority: 02

Channel: OTCIXS

Source: SID . . . 0224

Msg Type: All boxes checked

Precedence: All boxes checked

Action: Accept and Decode

Filter 3

Priority: 03

Channel: OTCIXS

Source: All Msgs

Msg Type: All boxes checked

Precedence: All boxes checked

Action: Ignore

Priority levels are used to help specify the action to be taken with incoming messages.

For example, an incoming message from the OTCIXS channel, with an SID of 0224 that is an OPNOTE passes the test for all three filters, yet the action taken is to ACCEPT AND NOT DECODE because Filter 1 has the highest priority.

Similarly, an incoming message from the OTCIXS channel with an SID of 0224 (not an OPNOTE) passes the test for Filter 2 and Filter 3, yet the action taken is to ACCEPT AND DECODE because Filter 2 has a higher priority than Filter 3.

Example 4

What if you want to set filters for the following conditions?

1) Accept and not decode OPNOTES from SID 0224 (Priority 2).

2) Ignore OTCIXS messages from SID 0224 (also Priority 2).

Two different Input Message filters must be set to satisfy the conditions listed in this example:

Filter 1

Priority:	02
Channel:	All
Source:	SID . . . 0224
Msg Type:	Check only OPNOTES box
Precedence:	All boxes checked
Action:	Accept and Not Decode

Filter 2

Priority:	02
Channel:	OTCIXS
Source:	SID . . . 0224
Msg Type:	All boxes checked
Precedence:	All boxes checked
Action:	Ignore

This example uses two filters with the same priority level. When an incoming message passes the test for both filters, such as an OPNOTE message coming in on the OTCIXS channel with an SID of 0224, the message is ACCEPTED AND NOT DECODED. This action is taken because ACCEPT AND NOT DECODE outweighs IGNORE when a message passes the test for two or more filters of the same priority level. If the same message was not an OPNOTE, it would be IGNORED, since it would only pass the test for Filter 2.

13.4 INPUT GEO FILTERS

Use the INPUT GEO FILTERS option to filter out track data updates from the incoming contact messages. Once filtered out, these tracks are not entered into the database, nor do they affect the tactical display.

***Rules for geographic filters*:**

When geofilters are used, different rules apply depending on whether the filters are turned off, one filter is turned on, or multiple filters are turned on.

For filters turned off:

1. If there are no filters defined or if all filters are turned off, then all track reports in received messages are decoded and accepted into the system.

For one filter:

1. If the track position is within the defined geolocation region for the filter, the report is locked into the filter.
2. A check is then made of the attributes, category/threat and the timelate values for the filter and the track.
    a. If the track passes all of these checks, then the inclusion or exclusion action defined by the filter is taken.
    b. If the track fails any of these checks, then the opposite inclusion or exclusion action is taken from that defined in the filter.

For multiple filters:

1. The geo-filters are sorted into priority order. When a message enters the system, the current position of the contact is checked against the geolocation of the filter with the highest priority.
    a. If a track is found within the defined geolocation region for the filter of the top priority, it is locked into that filter.
    b. If the track does not fall within the defined geolocation region for the top filter, the next highest priority filter is checked.
    c. Each lower priority filter is checked until the track falls into a defined geolocation region for the filter being checked.
    d. If the track does not fall into a defined geolocation for any filter, the action for the lowest priority filter is taken to determine whether the track is accepted or not accepted into the database.
2. A check is then made of the attributes, category/threat, and the timelate values for the filter and the track.
    a. If the track passes all of these checks, then the inclusion or exclusion action defined by the filter is taken.
    b. If the track fails any of these checks, then the opposite inclusion or exclusion action is taken from that defined in the filter.

Using the INPUT GEOFILTERS option:

Select INPUT GEO FILTERS from the FOTC/BCST pull-down menu to open the SELECT GEO-FILTER window (Figure 13.4-1).

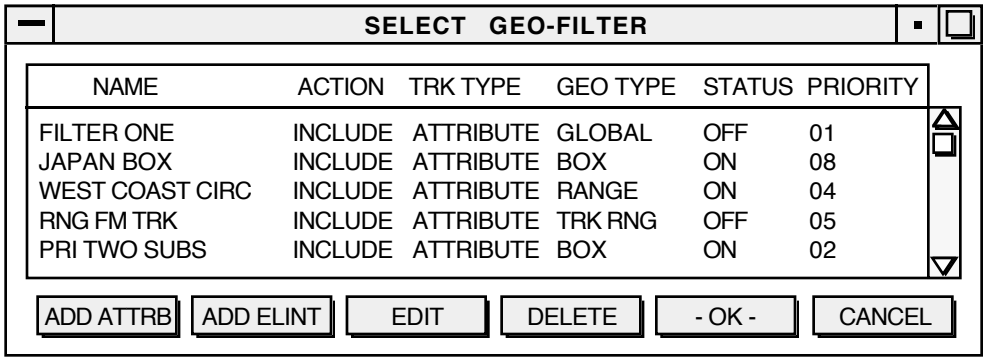


Figure13.4-1 Select Geo-Filter Window

The SELECT GEO-FILTER window lists all geo-filters in the system. Filters that appear in light blue are active; those appearing in white are inactive.

SELECT GEO-FILTER Window Buttons

ADD ATTRIB—adds a new geographic filter for incoming track reports. Described in *Add a New Attribute Geo-Filter*.

ADD ELINT—adds a new geographic filter for incoming ELINT tracks. Described in *Add an ELINT Geo-Filter*.

EDIT—a filter.

1. Select the filter from the SELECT GEO-FILTER window.
2. Click EDIT to open the EDIT INPUT ATTRIB GEO-FILTER window.
3. Make changes to the filter. Options to edit a filter are the same as those to add a filter.
4. Click OK to save the changes, or click CANCEL to disregard them.

DELETE—a filter.

1. Select one or more filters from the list in the SELECT GEO-FILTER window.
2. Click DELETE. The selected filters are removed from the system.

OK—saves the current filter information and closes the window. Any filters that are turned on will be used for future incoming track reports.

CANCEL—discards any changes and closes the window. Any filters that are turned on will be used for future incoming track reports.

SELECT GEO-FILTER Window Pop-up Menu Options

Pop-up menu options (described in *SELECT GEO-FILTER Pop-up Menu*): ACTIVATE, ADD ATTRIB, ADD ELINT, DEACTIVATE, DELETE, EDIT, EXIT, SELECT ALL, and UNSELECT ALL.

SELECT GEO-FILTER Window Fields

The following columns are shown in the scroll list:

NAME
Name of the filter.

ACTION
Action chosen for the filter, either INCLUDE or EXCLUDE.

TRK TYPE
Track type for the filter, either ATTRIBUTE or ELINT.

GEO TYPE
Geographical type for the filter. The available types and meanings are as follows:

GLOBAL: Track can be located anywhere in the world.

BOX: Rectangular area is used as the geolocation boundary for incoming tracks.

RANGE=: Circular area is used as the geolocation boundary for incoming tracks.

POLYGON: Polygon area is used as the geolocation boundary for incoming tracks.

TRK RNG: A specified range from a track is used as the geolocation boundary for incoming tracks.

STATUS
Shows whether the filter is turned ON or OFF. The filter must be ON to be used as a filter for incoming track reports.

PRIORITY
Shows the priority level for the filter, from 01-10, with 01 being the highest.

13.4.1 ADD A NEW ATTRIBUTE GEO-FILTER

Click ADD ATTRIB from the SELECT GEO-FILTER window to open the ADD INPUT ATTRIB GEO-FILTER window (Figure13.4 -2).

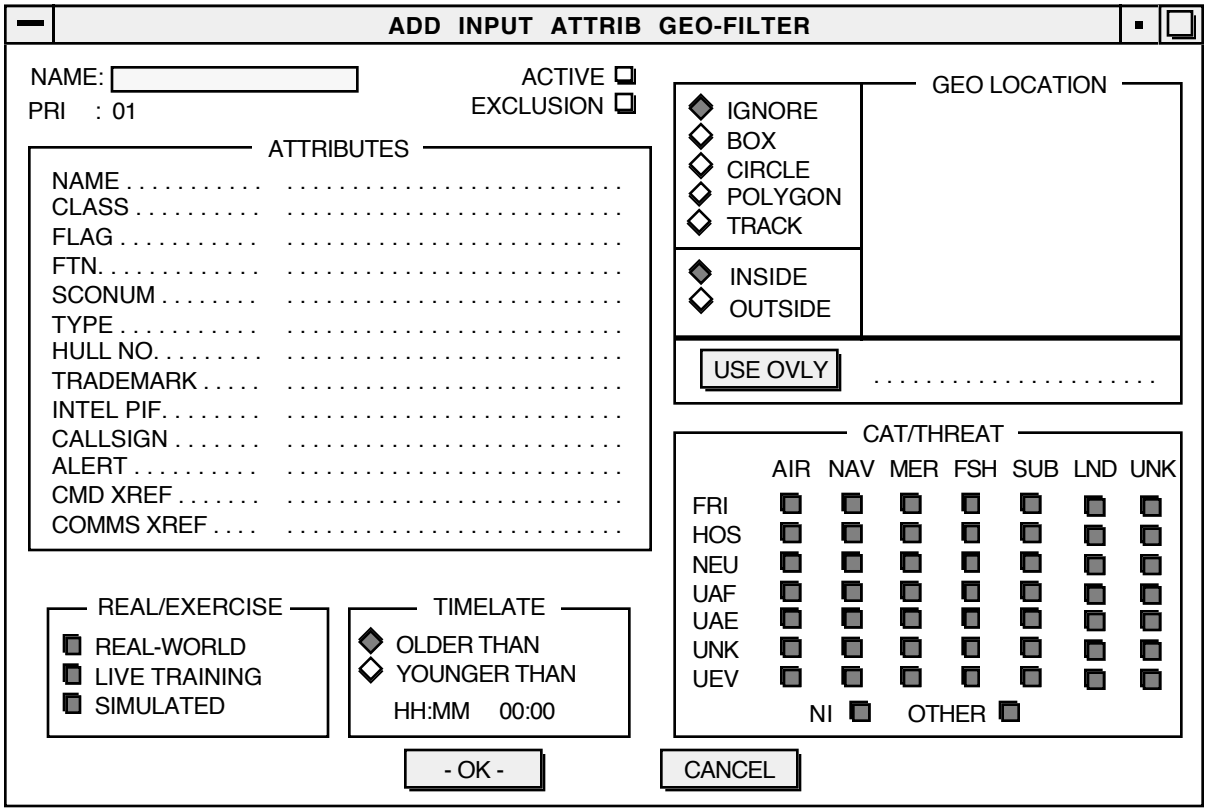


Figure13.4-2 Add Input Attrib Geo-Filter Window

The ADD INPUT ATTRIB GEO-FILTER window contains groups of items that can be used to help filter out incoming track reports: a group of general fields, an ATTRIBUTES box, a REAL/EXERCISE box, a TIMELATE box, a CAT/THREAT box, and a GEO LOCATION box.

1. Specify the filter criteria—set the checkboxes and diamond knobs, and enter field values.
2. Click OK to accept the settings, or click CANCEL to discard them.
3. If OK is clicked, the filter is listed in the SELECT GEO-FILTER window.

13.4.1.1 General Fields

Enter information about the filter in the general fields at the top of the ADD INPUT ATTRIB GEO-FILTER window:

NAME
Name for the filter.

PRI

Priority number for the filter (from 01 to 10, with 01 being the highest priority). Each filter should be assigned a different priority number. For a detailed description of how priority affects the geo-filter, see *About the INPUT GEO FILTERS option*..

ACTIVE

Click the checkbox to turn the filter on, or leave it blank to turn it off. The filter is applied to incoming track reports only if it is turned ON.

EXCLUSION

Defines the action taken if an incoming track report passes all criteria set for the filter.

• Leave the checkbox blank to accept and decode track reports that pass the criteria for this filter.

• Click the checkbox ON to discard (exclude) track reports that pass the criteria for this filter.

13.4.1.2 ATTRIBUTES Box

Use the ATTRIBUTES box to specify attributes for the filter. Enter values in any of the attribute fields that must be matched for the incoming track to pass the filter test.

For example, to include only United States tracks, enter US in the FLAG field.

Leave the field blank if an attribute should have no effect on the filter.

13.4.1.3 REAL/EXERCISE Box

The REAL/EXERCISE box specifies the status of tracks to be included in the filter.

1. Click the checkbox on for each status that is part of the filter. For example, to prevent any live training or simulated tracks passing this filter test, leave the LIVE TRAINING and SIMULATED checkboxes blank and turn on only the REAL-WORLD checkbox.
2. If all the checkboxes are left blank, no incoming tracks will pass the REAL/EXERCISE filter test.

13.4.1.4 TIMELATE Box

Use the TIMELATE box to specify a number of hours and minutes as a timelate interval—a period of time since the last report for a track.

1. Specify the timelate interval (HH:MM).

2. Use the diamond knobs in this box to indicate whether the filter is to include only those tracks OLDER THAN or YOUNGER THAN the timelate.
3. Examples:
   a. If the timelate is set to 24:00 and the YOUNGER THAN diamond knob is clicked, the track report will pass the timelate test only if it is less than 24 hours timelate. Track reports that are older than 24 hours timelate will fail the timelate test.
   b. To prevent timelate from affecting the filter, set the HRS TIMELATE to 00:00 and click the OLDER THAN diamond knob. All tracks will pass the test.

13.4.1.5 CAT/THREAT Box

The CAT/THREAT box specifies the category (Air, Nav, Subsurface, etc.) and threat (Friendly, Hostile, Unknown, etc.) combinations included in the filter. To include a category and threat status:

1. Click the checkbox ON for those category/threat combinations that should pass the filter test.
2. Leave the checkboxes blank for all incoming tracks that should fail the CAT/THREAT filter test.
   – For example, to receive all submarine reports except friendly submarines, turn on all checkboxes in the SUB column except the checkbox to the right of FRI (leave it blank).

13.4.1.6 GEO LOCATION Box

The GEO LOCATION box contains:

- Diamond knobs to specify a particular geographical filter area (IGNORE, BOX, CIRCLE, POLYGON, TRACK).
- Diamond knobs to indicate whether the track should be INSIDE or OUTSIDE of the area.
- A description of the geographic area.
- USE OVLY button to retrieve a previously defined geographical overlay for the filter.

IGNORE Diamond Knob

Accepts track reports for the entire world instead of filtering for a specific geographical area.

BOX Diamond Knob

Specifies a rectangular filter area for the track reports. An UPPER LEFT and LOWER RIGHT field and an EDIT button appear in the right portion of the GEO LOCATION box (Figure13.4 -3).

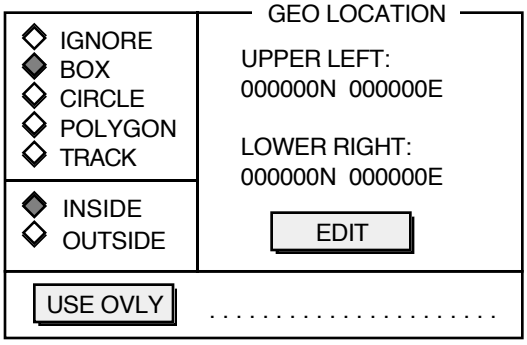


Figure13.4-3 Geo Location Box with BOX diamond knob clicked

To define the filter area, use one of the following methods:

1. Click EDIT to open the EDIT RECTANGLE window (Figure13.4-4).
2. Enter lat/long values using one of these methods:
   - Enter lat/long values for the corners of the rectangle in the UPPER LEFT and LOWER RIGHT fields.
   - Draw a filter area directly on the tactical display.
3. To draw a rectangle:
   a. Click a point on the tactical display for the upper left corner of the rectangle.
   b. Move the pointer to the position for the lower right corner of the rectangle, and click the trackball button.
   c. The lat/long values for the positions automatically fill the UPPER LEFT and LOWER RIGHT fields.
4. The AREA is automatically calculated regardless of the method used to enter lat/long values.
5. Specify whether the rectangle's lines are shown as Great Circle (GC) lines or Rhumblines (RL).
   - Great Circle line—shortest path between two points; may appear curved with some map projections.
   - Rhumbline—straight line on a Mercator projection map.
6. A NAME is not required.

7. Click OK to accept the settings, or click CANCEL to discard them.

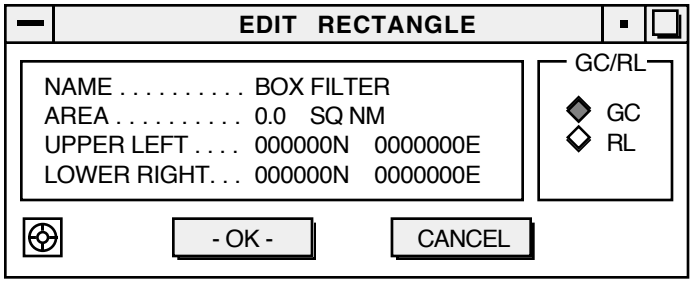


Figure13.4-4 Edit Rectangle Window

CIRCLE Diamond Knob

Specifies a circular filter area for the track reports. CENTER and RANGE fields and an EDIT button appear in the right portion of the GEO LOCATION box (Figure13.4 -5).

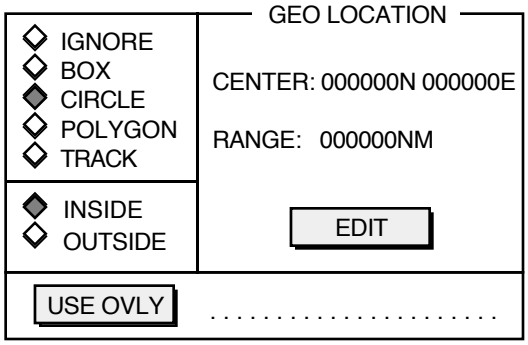


Figure13.4-5 Geo Location Box with CIRCLE diamond knob clicked

To define the filter area:

1. Click EDIT to open the EDIT CIRCLE window (Figure13.4 -6).
2. Define the center and radius of the circle using one of these methods:
   a. Enter values in the CENTER and RANGE fields.
   b. Draw the filter area directly on the tactical display.
3. To draw the circle:
   a. Click a point on the tactical display for the center of the circle.
   b. Move the pointer outward, creating a circle on the screen, until the circle covers the area for the filter. Click the trackball button.

c. The lat/long value of the CENTER and the nautical miles of the RADIUS fill those fields.

d. Optional: Use the grab points to adjust the size (radius) of the circle.

e. Optional: Move the entire circle to a new location by clicking and holding down the left trackball button on the center point, dragging the circle to a new location, and releasing the trackball button.

4. The AREA is automatically calculated.
5. A NAME is not required.
6. Click OK to accept the settings, or click CANCEL to discard them.

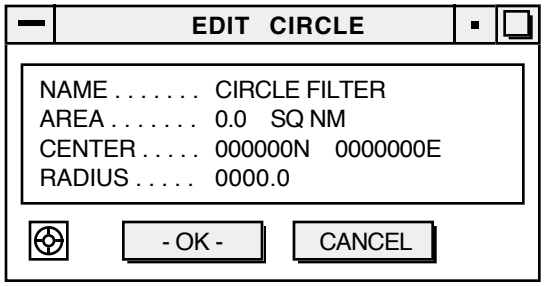


Figure13.4-6 Edit Circle Window

POLYGON Diamond Knob

Specifies a filter area in the shape of a polygon. A list of endpoints for the polygon appears in the right portion of the GEO LOCATION box (Figure13.4 -7). If the endpoints form an open polyline rather than a closed polygon, an imaginary line is drawn from the first point to the last point to define the filter area.

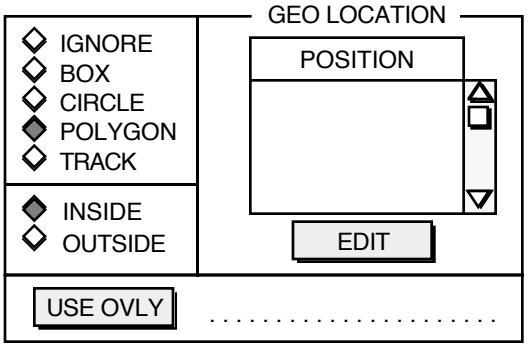


Figure13.4-7 Geo Location Box with POLYGON diamond knob clicked

Click EDIT to open the EDIT POLYLINE window (Figure13.4 -8).

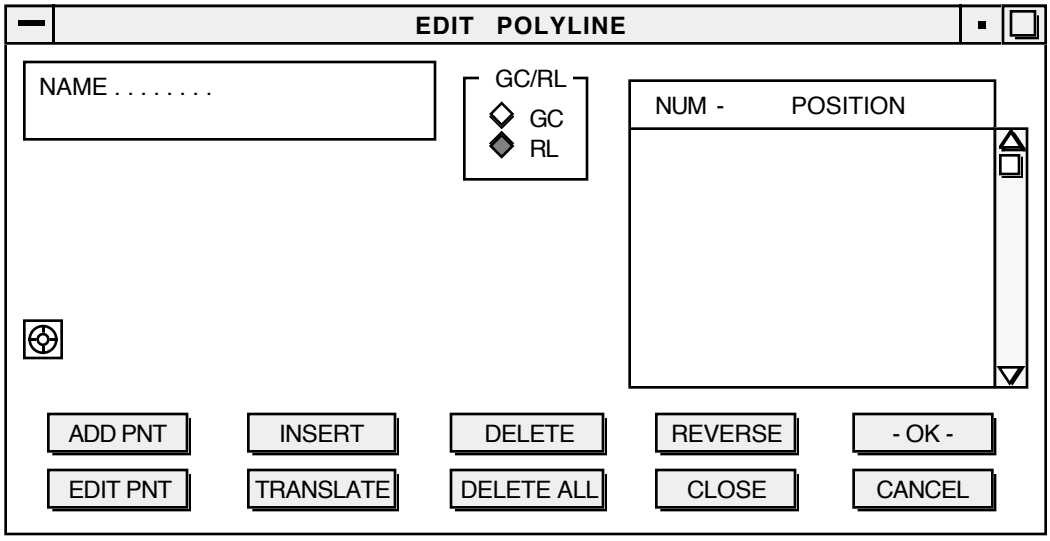


Figure13.4-8 Edit Polyline Window

EDIT POLYLINE Window Button

ADD PNT—add an endpoint to the polyline.

1. Click ADD PNT to open the ADD POINT window.
2. Enter the lat/long value for a polyline endpoint, either using the keyboard or click a point on the tactical display.
   a. The new position becomes the last endpoint of the polyline.
   b. The window remains open so additional endpoints can be entered.
   c. If values are entered via the keyboard, click ACPT PNT after entering each endpoint.
3. Click OK to accept the polyline and return to the EDIT POLYLINE window.

EDIT PNT—edit a polyline endpoint.

1. Select the endpoint from the scroll region of the EDIT POLYLINE window and click EDIT PNT.
2. The EDIT POINT window appears to edit the LAT/LONG position.
3. Enter a new position and click OK.
4. The position changes on the tactical display and the EDIT POLYLINE window reappears.

An *alternate way* to edit a polyline endpoint: Click on an endpoint from the tactical display and drag it to a new position.

INSERT—an endpoint between two endpoints.

1. Select the endpoint immediately *after* the new endpoint to enter and click INSERT.
2. The ADD POINT window appears to enter a new LAT/LONG position.
3. Enter the new LAT/LONG position from the keyboard, or click on the tactical display for the new point.
4. Click OK. The new endpoint is inserted before the selected endpoint and the EDIT POLYLINE window reappears.
5. Endpoints that follow the inserted endpoint are automatically renumbered.

TRANSLATE—move the entire polyline to a new position.

1. Click TRANSLATE to open the TRANSLATE window.
2. Click the trackball anywhere on the tactical display and move the pointer the distance and direction that the polyline is to move.
3. Click a second time and the entire polyline moves as indicated, or click CANCEL to discard the translate request.

DELETE—a polyline endpoint.

1. Select one or more endpoints in the scroll list from the EDIT POLYLINE window and click DELETE.
2. The selected endpoints disappear from the scroll list and the tactical display.

DELETE ALL—polyline endpoints.

1. Click DELETE ALL.
2. An ANSWER PLEASE window appears requesting confirmation to delete all points.
3. Click YES to confirm the delete, or click NO to return to the EDIT POLYLINE window without deleting the points.

REVERSE—the order of the endpoints.

1. Click REVERSE.
2. The endpoints in the scroll list are reversed and the labels on the tactical display are reversed to match the new ordering sequence.

CLOSE—the polyline to form a polygon.

1. Click CLOSE.
2. A new endpoint is added to the polyline, with the same lat/long as the first endpoint in the polyline.
3. To open the polygon again, delete the last endpoint.

OK—save the current polyline and close the window.

CANCEL—close the window without saving changes made since the last time the polyline was saved.

EDIT POLYLINE Window Fields

NAME
Enter a name for the polyline, or any remarks about it.

GC/RL Box
Select a diamond knob to display the lines of the polyline as Great Circle lines or Rhumbline.

GREAT CIRCLE line—the shortest path between two points; may appear curved with some map projections.

RHUMBLINE—straight line on a Mercator projection map.

EDIT POLYLINE Pop-up Menu

The UNDO pop-up option is not active for the current JMCIS version. When active, the UNDO option will cancel the last action performed.

For example, if a new endpoint has been inserted, choose UNDO to cancel this action and plot the polyline as it was before the insert action.

TRACK Diamond Knob

Specifies a circular filter area based on a range from a selected track. The track name and local track number, the RANGE, and a SEARCH button appear in the right portion of the GEO LOCATION box (Figure13.4 -9).

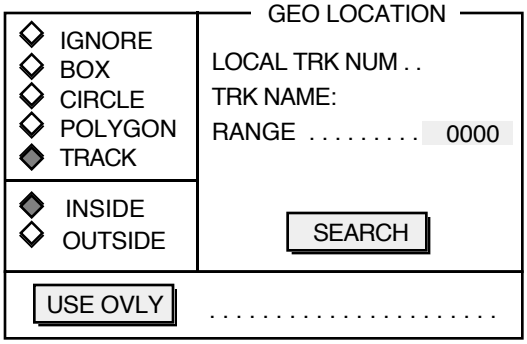


Figure13.4-9 Geo Location Box with TRACK diamond knob clicked

To define the filter, specify a track and a distance from the track:

1. Identify the track name and local track number in one of two ways:
   - Click on the track on the tactical display.
   - Use the SEARCH button (described below).
2. In the RANGE field, enter the radius of the circle (in NM) which contains the selected track as its center.

To use the SEARCH button:

1. Click SEARCH to open the QUICK SEARCH window (Figure 13.4 -10).
2. Enter the text for the search criteria (up to 26 characters) in the ENTER SEARCH STRING field. For example, enter a ship name in this field to search for a specific ship. Or, enter a country code to search for all tracks from a particular country.
   - Enter the information exactly as it is entered in the track database. For example, if the unit name of the track is TRACK ONE, the search will be unsuccessful if TRACK 1 is entered.
   - Use the asterisk (*) character as a wildcard to replace part of a word if unsure of the complete spelling, or to perform a search for all tracks that have the same partial word spelling. For example, TRACK* will find both TRACK ONE and TRACK 1.
3. Click OK to perform the search, or click CANCEL to discard the request.

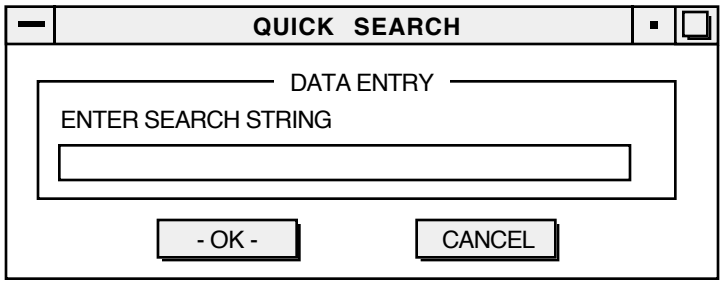


Figure 13.4-10 Quick Search Window

If more than one track is found, a SELECT GEO TRACK window appears. This window contains a list of all tracks found in the quick search.

1. Select the track from the list and click OK.

2. The ADD INPUT ATTRIB GEO-FILTER window reappears with the local track number for the selected track filled in the LOCAL TRKNUM field and the track name filled in the TRK NAME field.

INSIDE/OUTSIDE Diamond Knobs

INSIDE and an OUTSIDE diamond knobs are located in the bottom-left portion of the GEO LOCATION box.

INSIDE
Click to specify that only the internal area of the geographical area drawn is included in the filter.

OUTSIDE
Click to specify that only the outside area of the geographical area drawn is included in the filter.

USE OVLY Button

The USE OVLY button retrieves a previously defined geographical overlay area for the filter. Overlays are defined with the OVERLAYS option from the SUPPORT TDA'S menu.

Click USE OVLY to open the SELECT OVERLAY SEGMENT window (Figure13.4 -11).

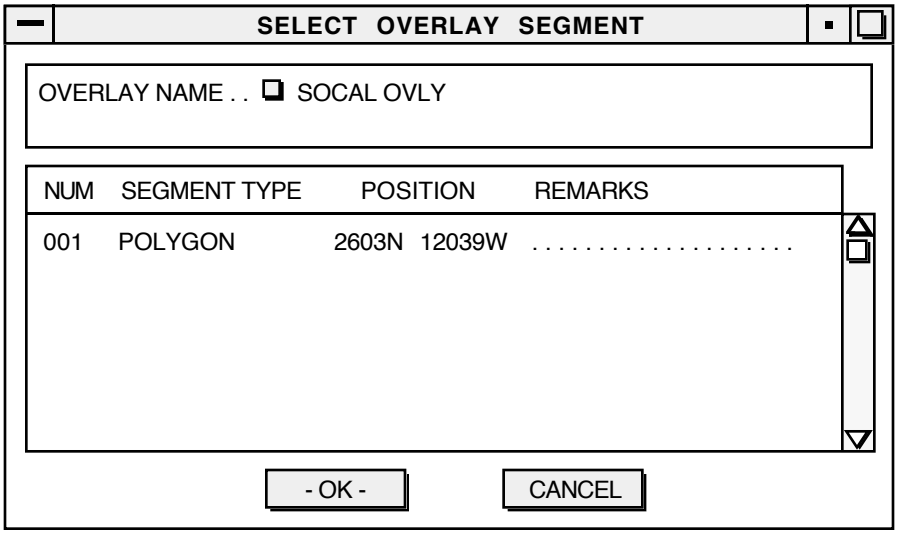


Figure13.4-11 Select Overlay Segment Window

The window shows the name of an overlay and a list of the objects contained in the overlay. Note: Only closed overlay objects may be used in the search; therefore, only closed overlay objects appear in the list.

To select a different overlay than the one shown in the top box:

1. Click the OVERLAY NAME list box to show all overlays in the system.
2. Select an overlay from the list.
3. The objects of the selected overlay appear in the list.

To select an overlay for the geographical filter area:

1. Select one overlay object from the list.
2. Click OK to accept the object, or click CANCEL to discard it.
3. The GEO LOCATION box in the DATABASE SEARCH window reflects the values for the chosen overlay object.
2. Select an overlay from the list.
3. The objects of the selected overlay appear in the list.

To select an overlay for the geographical filter area:

1. Select one overlay object from the list.
2. Click OK to accept the object, or click CANCEL to discard it.
3. The GEO LOCATION box in the DATABASE SEARCH window reflects the values for the chosen overlay object.

13.4.2 ADD AN ELINT GEO-FILTER

Click ADD ELINT from the SELECT GEO-FILTER window to open the ADD INPUT ELINT GEO-FILTER window (Figure13.4 -12).

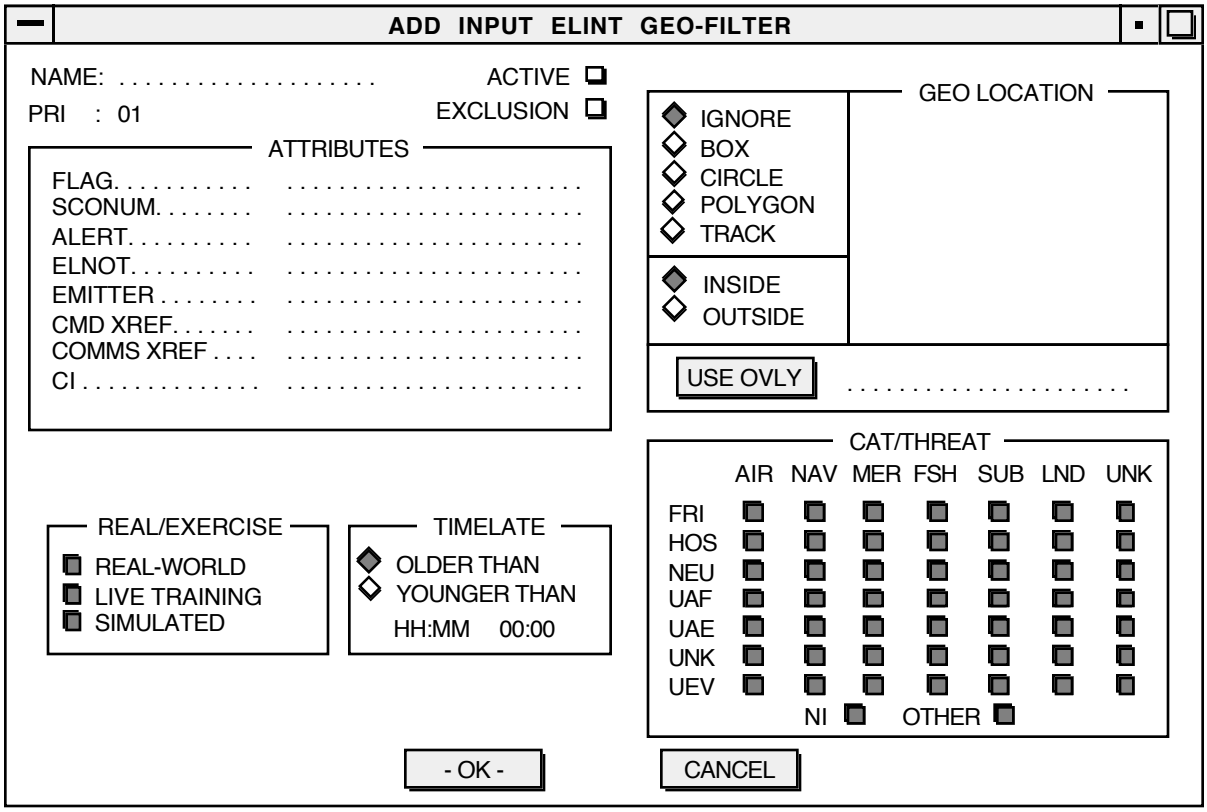


Figure13.4-12 Add Input ELINT Geo-Filter Window

Use the ADD INPUT ELINT GEO-FILTER window to add a new geo-filter for incoming ELINT tracks. This window is the same as the ADD INPUT ATTRIB GEO-FILTER window, except for the fields in the ATTRIBUTES box.

Refer to *Add a New Attribute Geo-Filter* for complete details on entering data in this window.

13.4.3 SELECT GEO-FILTER POP-UP MENU

Options on the SELECT GEO-FILTER pop-up menu (ADD ATTRIB, ADD ELINT, EDIT, DELETE, SELECT ALL, UNSELECT ALL, and EXIT) perform as described in the *Summary of Common Operations* or function as buttons with the same names described elsewhere in this section. The menu also includes:

ACTIVATE

Select an inactive geo-filter from the SELECT GEO-FILTER window and choose the ACTIVATE option to activate the filter.

- Active filters appear in light blue on the list and inactive filters appear in white.

- This option performs the same function as clicking the ACTIVE checkbox ON when defining or editing a geo-filter.

DEACTIVATE

Select an active geo-filter from the SELECT GEO-FILTER window and choose the DEACTIVATE option to deactivate the filter.

- Inactive filters appear in white on the list and active filters appear in light blue.
- This option performs the same function as leaving the ACTIVE checkbox blank when defining or editing a geo-filter.

13.5 FOTC PARAMETERS

Use the FOTC PARAMETERS option to set the parameters for FOTC (Force Over-the-Horizon Track Coordinator) mode.

About FOTC:

- When a group of ships is in FOTC mode, one ship is designated as the FOTC Coordinator ship, with the other ships designated as FOTC Participants.
- FOTC mode is used to synchronize track information for all ships in a group.
- All incoming contact reports are sent to the FOTC Coordinator ship where they are processed and broadcast to all FOTC participants.
- The FOTC Broadcast runs only in Coordinator or Participant mode. It *never* runs in Non-Participant mode.
- While in one of the two FOTC modes, use the BROADCASTS option (COMMS pull-down menu) to start and stop the FOTC Broadcast at any time.
- In Coordinator or Participant mode, make sure the correct Receive Guard List in the ON-143 (V) 6 has been entered for the mode of operation.

To access this window: FOTC/BCST menu **:** FOTC PARAMETERS option **:** EDIT BGDBM CONFIGURATION window (Figure 13.5-1).

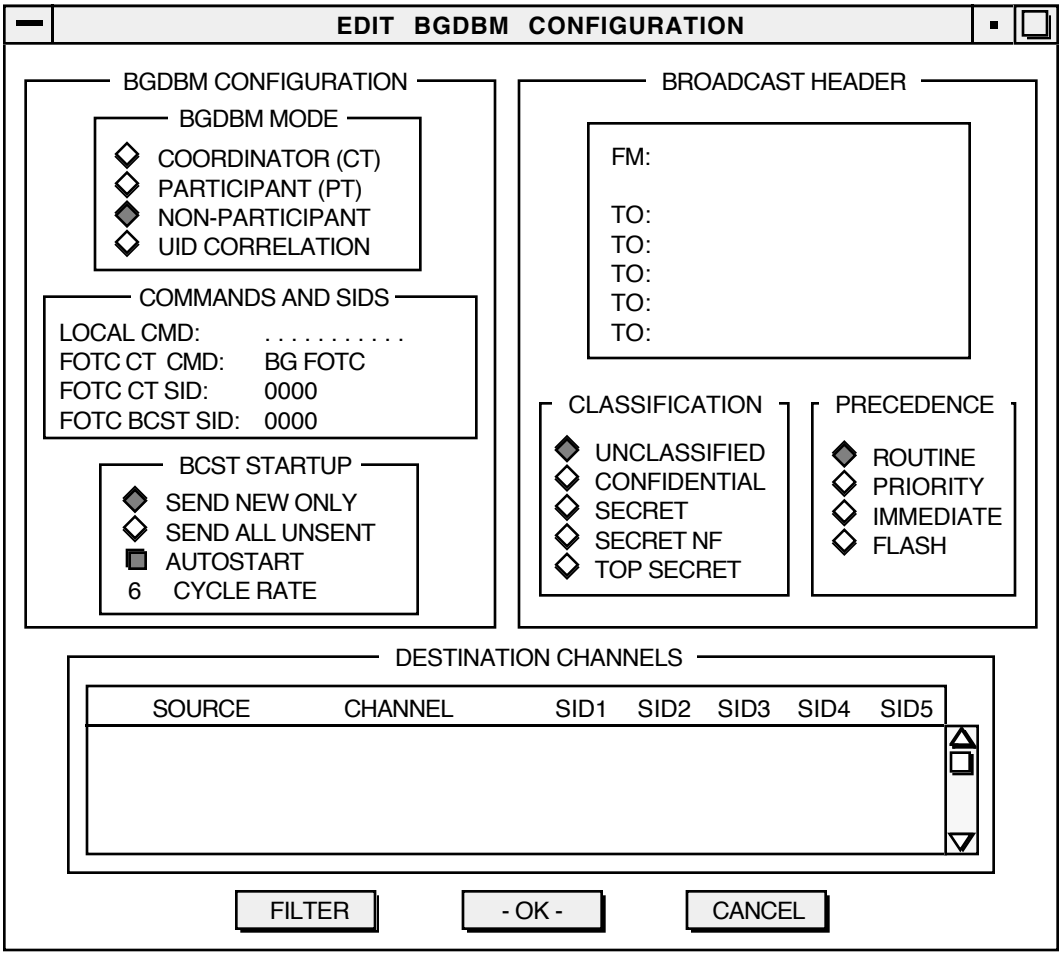


Figure13.5-1 Edit FOTC Configuration Window

EDIT BGDBM CONFIGURATION Window Buttons

FILTER—identifies a geographical area or the type of tracks to be monitored.

1. Click FILTER to open the DATABASE SEARCH window.
   a. This same window appears when using the SEARCH option from the TRACKS pull-down menu.
   b. In this instance, the window is used to isolate a region of interest for the broadcast, or to choose a track type or CAT/THREAT type for tracks that are to be monitored.
2. Use the fields, checkboxes, and diamond knobs on this window to choose the specific geographical area or the specific track types to be monitored.
3. Click OK to accept entries, or click CANCEL to discard the entries.

OK—saves the settings and closes the window.

CANCEL—discards any changes and closes the window.

EDIT BGDBM CONFIGURATION Window Pop-up Menu Options

Pop-up menu options (described in *EDIT BGDBM CONFIGURATION Pop-up Menu*): CANCEL, OK, OUTPUT FILTERS, RECALL DEFAULT HDR, RECALL HEADER, SAVE HEADER, and UPDATE TOGGLES.

EDIT BGDBM CONFIGURATION Window Fields

The EDIT BGDBM CONFIGURATION window contains three main boxes: BGDBM CONFIGURATION box, BROADCAST HEADER box, and DESTINATION CHANNELS box.

13.5.1 BGDBM CONFIGURATION BOX

The BGDBM (Battle Group Database Management) CONFIGURATION box sets the FOTC configuration.

- Click the applicable diamond knob in the BGDBM MODE box to designate the ship as the COORDINATOR, a PARTICIPANT, or a NON-PARTICIPANT.
- For ashore sites, the UID Correlation diamond knob puts the correlator in UID mode.

FOTC Coordinator or Participant:

1. Select the appropriate diamond knob—COORDINATOR (CT) or PARTICIPANT (PT).
2. Enter data in *all* remaining fields in the BGDBM CONFIGURATION box—COMMANDS AND SIDS and BCST STARTUP.
3. Enter information in the BROADCAST HEADER box.

Non-Participant or Ashore Site:

1. Select the appropriate diamond knob—NON-PARTICIPANT or UID CORRELATION.
2. *Do not* enter information into the remaining fields in the BGDBM CONFIGURATION box nor the BROADCAST HEADER box.

About UID Correlation:

If the UID CORRELATION knob is selected, every track in the system is assigned a UID number. When a track report enters the system:

1. The system attempts to correlate the track based on the UID number.
2. If a matching UID number is found, then an update occurs for this track.
3. If no matching UID number is found, or the report contains no UID number, then standard correlation is performed.
4. If a positive correlation occurs, the matching track is updated by the report.
5. If the incoming report had a UID already, a track merge takes place. The merge message is transmitted to all track broadcasts with the system UID value as the master track UID.
6. If a positive correlation does not occur, then either an ambiguity or a new track is created. In either case, a UID value is assigned if one is not already present.

Hence, no track in the system, whether in an ambiguity state or not, exists without an assigned UID value.

COMMANDS AND SIDS Box

Enter values in these fields *only* if using FOTC Coordinator or Participant mode. When changing to either Coordinator or Participant mode, ensure the proper commands are set for both the local and FOTC command fields.

LOCAL CMD

Local command for the ship.

The LOCAL command should be set only once and never has to be changed. It is normally the same as the command used in manual transmissions from the group performing the FOTC operations.

For example, COMCARGRU ONE on the USS INDEPENDENCE would set the LOCAL command to INDEPENDENCE, not COMCARGRU ONE.

FOTC CT CMD

FOTC command.

In most situations, the FOTC command is unique in a battle group/force (such as BG DELTA FOTC). Here, the FOTC command can (and should) remain the same, regardless of the FOTC mode.

Some battle groups/forces use local commands for FOTC command. Under these circumstances, the FOTC command must be changed whenever FOTC responsibilities move from one platform to another.

For example, when FOTC control shifts from the USS FORRESTAL to the USS SPRUANCE, everyone in the battle group must change the FOTC command to SPRUANCE at the planned FOTC shift time. Also, the USS FORRESTAL must change the toggles from COORDINATOR to PARTICIPANT and the USS SPRUANCE must change the toggles from PARTICIPANT to COORDINATOR. For all ships, the LOCAL command never changes.

FOTC CT SID

The OTCIXS SID of the FOTC Coordinator.

This SID is used by anyone sending a message directly to FOTC. The FOTC SID field is used when in normal AFLOAT FOTC operations.

If a system is listening to FOTC messages received from a communications channel other than OTCIXS, then this field should be left blank or contain zeroes.

The FOTC SID changes whenever FOTC shifts from one platform to another, even when the FOTC command does not change—because every platform has a unique SID assignment.

FOTC BCST SID

FOTC Broadcast SID.

FOTC Coordinators *send* FOTC data on this SID, and FOTC Participants *receive* their FOTC data from this SID.

SOURCE XREF TABLE Information

The combination of the FOTC command and FOTC SID is used to create an entry in the SOURCE XREF TABLE.

If the COORDINATOR or PARTICIPANT diamond knob is selected in the EDIT BGDBM CONFIGURATION window, this entry is automatically placed in the SOURCE XREF TABLE:

XREF	COMMAND	SID
XX	FOTC Command	Your SID (if Coordinator) or FOTC's SID (if Participant) for OTCIXS

BCST STARTUP Box

Use these fields only when in FOTC Coordinator or Participant mode.

1. Choose a knob to specify the type of data sent at *broadcast startup* (new only or all unsent)..
2. Indicate whether the broadcast is turned on at *system startup.*

3. Set the cycle time for messages to be broadcast.

When the FOTC Broadcast is ON, the FOTC Coordinator sends track database changes at specified intervals.

The fields in this box define actions relating to broadcast startup.

SEND NEW ONLY (Diamond Knob)
On broadcast startup, no track data is sent.

SEND ALL UNSENT (Diamond Knob)
On broadcast startup, sends all track data not previously sent.

AUTOSTART
Use the AUTOSTART checkbox to specify whether the broadcast is turned on at startup. It is a good idea to always have the AUTOSTART box selected when operating in the FOTC environment.

If the AUTOSTART checkbox is set and the FOTC Broadcast is not currently running, the broadcast automatically starts when OK is clicked to save the changes in the EDIT BGDBM CONFIGURATION window.

If the AUTOSTART checkbox is not set and the FOTC Broadcast is not currently running, use the BROADCASTS option from the FOTC/BCST menu to manually start the broadcast.

CYCLE RATE
Set the time interval between transmissions of the broadcast beginning at broadcast startup. Enter the cycle time in minutes.

13.5.2 BROADCAST HEADER BOX

Use these fields only in FOTC Coordinator or Participant mode.

The BROADCAST HEADER box specifies broadcast recipients and other transmission information. This information appears in the header of the outgoing broadcast messages.

- Enter information into the fields and click the applicable diamond knobs to create a new message header.
- Use options from the pop-up menu (described later in this section) to save the header setup or to recall an existing header.

FM
FOTC Coordinator: Enter the FOTC command.

FOTC Participant: Enter the local command.

If the auto-forward table contains a match for the value entered in this field, the auto-forward entry will appear in the DESTINATION CHANNELS box. (It may be necessary to press RETURN.)

TO

Five fields are provided for the message destinations. Enter individual sites or commands. Information depends on the FOTC mode.

FOTC Coordinator: Enter the battle group command.

FOTC Participant: Enter the FOTC command.

The FOTC header must have at least one message destination.

Each destination addressee (TO:) must have a corresponding entry in the AUTO FORWARD table, which is reflected in the DESTINATION CHANNELS box.

CLASSIFICATION Box

Select the security classification for the message:

UNCLASSIFIED

CONFIDENTIAL

SECRET

SECRET NF (secret no foreign)

TOP SECRET

Classifications appear in blue if they are not available on a machine.

There are three areas where a security classification is assigned: Local Area Network (LAN), workstation, and user. The LAN classification is set when the software is installed and can only be changed by reloading the software. The workstation classification is set by the Security Manager and can be modified at any time. The user classification is set when the user account and role is created.

PRECEDENCE Box

Select the message precedence:

ROUTINE

PRIORITY

IMMEDIATE

FLASH

13.5.3 DESTINATION CHANNELS BOX

The DESTINATION CHANNELS box reflects information from the AUTO FORWARD TABLE (COMMS pull-down menu) that matches entries in the FM and TO fields.

- If nothing is listed in this box, no messages will be sent from the broadcast.
- Double-check the header information in the AUTOFORWARD TABLE .
- Information in this box is view-only and cannot be edited.

DESTINATION CHANNELS Box Fields

SOURCE
Source type and specific source (if appropriate) that will be forwarded for a message.

CHANNEL
Message channel used to forward the message.

SID1-SID5
SID1 through SID5 indicates the SIDS where the message will be sent.

13.5.4 EDIT BGDBM CONFIGURATION POP-UP MENU

In addition to options described in *Summary of Common Operations* (OK and CANCEL), the EDIT BGDBM CONFIGURATION pop-up menu also includes:

OUTPUT FILTER

The OUTPUT-FILTER option (FOTC broadcast filter) is used to determine if a track will have a FOTC track number or not, and consequently, if it should be broadcast. This option works the same as the FILTER button in the EDIT BGDBM CONFIGURATION window.

UPDATE TOGGLES

Use this pop-up option to specify whether tracks should be automatically created or updated during correlation. The settings shown in Figure13.5-2 are default values.

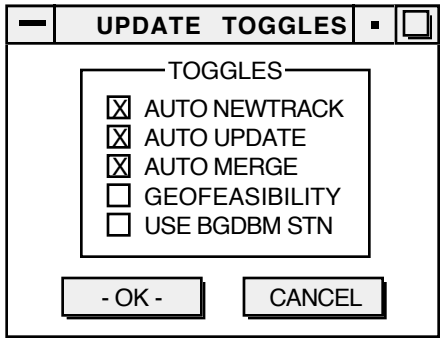


Figure13.5-2 Update Toggles Window

AUTO NEWTRACK

ON: A new track is automatically created for a candidate track that does not meet the requirements for merging with an existing track.

OFF: An ambiguity is created instead.

AUTO UPDATE

A track position is automatically updated on the tactical display when a new report comes in.

OFF: The old track position remains on the display and the new position for the track also appears, as an ambiguity.

AUTO MERGE

ON: An operator reprocess of tracks results in the reprocessed track updating another track in the system. If no attribute or position conflicts are found, the incoming report will update the designated FOTC track and auto merge any local tracks found as candidates to the FOTC track. (Default = ON.)

OFF: If AUTO MERGE is disabled, reprocess of tracks will do nothing.

About Auto-Merge

AUTO MERGE handles situations where two tracks exist in JMCIS with no common unique attribute (even though they are really the same track), and new information is later introduced that allows the system to automatically determine these are really the same track.

For example: Two tracks, T4010 & T4011, exist in JMCIS. However, they are really separate reports on the same track and *should* be merged.

- Track T4010 has only one unique attribute, a PIF code = 1234.
- Track T4011 has only one unique attribute, a name = TESTER.

• A report enters the system containing the name TESTER with the PIF code of 1234. (It was not known that PIF code 1234 belonged to TESTER.)

• The system can now attempt to merge track T4010 with T4011 based on this common unique attribute.

PT mode w/AUTO-MERGE enabled: Only non-FOTC tracks will be considered for merging into a FOTC track. A PT will never automatically merge two FOTC tracks.

GEOFEASIBILITY

A check is made for any new contact to be merged with an existing track to ensure the new position is geographically feasible.

For example, if the new position for a ship is farther than the ship could possibly have traveled at top speed for the time interval between reports, the new contact will not be merged with the existing track.

OFF: A geofeasibility check is not made before a new report is merged with an existing track.

To determine the geofeasibility of a report (assuming all other correlation criteria are satisfied):

1) The correlator checks the new report and the previous report for the track.

2) If either report is an LOB (line of bearing) report, or if either has an unreported AOU, geofeasibility is not checked and the new report is merged with the existing track.

3) If both reports have an AOU, the correlator calculates the distance between the closest points of the AOUs for the two reports.

4) The correlator determines the speed it would take for the track to travel from the first point to the second point.

5) This speed is compared to a table of speeds for different track types to determine geofeasibility. The following table is used:

AIR = 1000 knots

LAND = 60 knots

UNK, NAV, SUB = 30 knots

MER, FSH = 25 knots

6) If the calculated speed of the track is less than the value in the table, the new report is considered geofeasible and it is merged with the existing track.

7) If the speed is greater than the value in the table, the new report is not geofeasible, and the new report becomes an ambiguity.

USE BGDBM STN

Ensure all FOTC ships stay in sync when one or more of the ships have a pre-2.0 version of UB.

- If there is a FOTC broadcast involving ships with pre-2.0 versions of UB, this checkbox should be clicked ON.
- If the FOTC broadcast involves only ships with JMCIS/UB 2.0 or higher versions, leave this checkbox blank.

SAVE HEADER

Saves a copy of the information shown in the BROADCAST HEADER box, which can be recalled in the future.

1. Enter header information.
2. Choose the SAVE HEADER option. The information is saved and can be recalled later with the RECALL HEADER option.

RECALL HEADER

Recalls saved header information. Choose RECALL HEADER to open the RECALL HEADER window (Figure13.5-3).

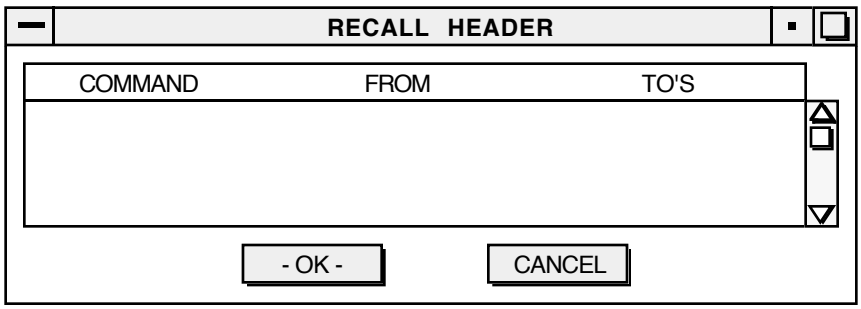


Figure13.5-3 Recall Header Window

The RECALL HEADER window shows a list of all saved headers.

1. Select a header from the list.
2. Click OK to retrieve it, or click CANCEL to discard the recall operation.
3. The selected header is retrieved and its values fill the fields in the BROADCAST HEADER box.

RECALL DEFAULT HDR

Recalls a default header (previously defined using the MSG HEADERS option from the COMMS pull-down menu).

When this option is chosen, the default header is retrieved and its values fill the fields in the BROADCAST HEADER box.

13.5.5 MULTI-FOTC MODE

A unit configured for multi-FOTC mode can show a tactical picture that consolidates input from more than one FOTC Coordinator.

Points to Consider for Multi-FOTC Mode

- A multi-FOTC system acts as a FOTC Participant when dealing with data from the coordinators, who are called "pseudo-FOTCs" to distinguish them from the single FOTC Coordinator in a normal FOTC environment.
- **Warning:** It is ***strongly*** recommended that Non-Participant mode be used when working in a multi-FOTC environment.
- The system *does* allow multi-FOTC in PT, CT, or in UID mode, but this can result in unexpected track deletions and merges that cannot be undone.
- While in FOTC CT or PT mode, no pseudo-FOTC can delete a track from the database; however, merge, DPOS, and DLOB messages are processed.
- If assigned to be in CT mode, make sure that pseudo-FOTC's area of interest *does not* overlap your area of interest. If the area of interests overlap, don't use multi-FOTC mode.

13.5.5.1 How to Set Up Multi-FOTC Mode

To set up a multi-FOTC environment, add an entry to the SOURCE XREF TABLE for each pseudo-FOTC.

(SOURCE XREF TABLE option: TRACKS pull-down menu, TRACK TABLES option.)

Click ADD to open the ADD XREF window (Figure13.5 -4).

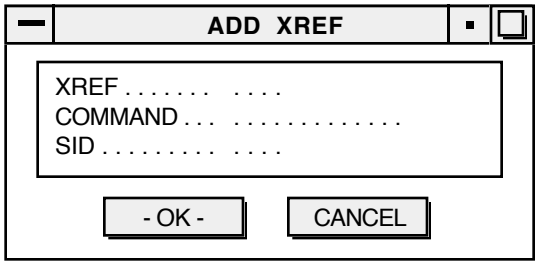


Figure13.5-4 Add XREF Window

1. Enter FOTC in the XREF field.
2. Enter the pseudo-FOTC command in the COMMAND field.
   a. A WARNING window may appear stating "a duplicate SOURCE XREF entry has been created."
   b. Click OK each time the WARNING window appears.
3. Leave the SID field blank.
4. Click OK.
5. Repeat steps 1-4 for each pseudo-FOTC command to monitor. The system can usually store 50 SOURCE XREF TABLE entries.

13.5.5.2 Using Multi-FOTC Mode

When working in multi-FOTC mode, the system accepts messages generated by *all* pseudo-FOTC Coordinators listed in the SOURCE XREF TABLE, *except in the following cases*:

- *Delete Track Messages.* In cases where more than one pseudo-FOTC has been reporting a track, each pseudo-FOTC must send a message to delete that track.
  - A track doesn't actually get deleted from the multi-FOTC database until the last reporting pseudo-FOTC sends a delete message.
  - Before that last message, each delete message causes the corresponding RTN to be removed from the multi-FOTC database.
  - Note: A track will never be deleted by a pseudo-FOTC while in CT or PT mode.
- *Merge Messages.* If more than one pseudo-FOTC has reported a track, only *one* pseudo-FOTC needs to send a merge message to make that merge happen in the multi-FOTC database.
- *Delete Position (DPOS) and Delete Line of Bearing/Bearing Box (DLOB) Messages.* If more than one pseudo-FOTC has reported a track, only *one*

pseudo-FOTC needs to send a DPOS/DLOB message to cause that deletion in the multi-FOTC database.

13.5.5.3 Advantages and Disadvantages of Multi-FOTC Mode

Multi-FOTC mode advantages:

- Allows battle group and battle force commanders to simultaneously see what each FOTC database in the battle group looks like.
- Commanders can quickly determine which tracks each FOTC CT has added, deleted, or merged.

Multi-FOTC mode disadvantages:

- Since you are technically not a FOTC participant, cannot receive notification of emergency FOTC shifts.
- May miss important opnotes that contain FOTC management information, which can lead to track duplication in the database.
- Unable to process FOTC SITREPs from any of the pseudo-FOTCs as a non-participant.

13.6 FOTC SITREP

Use the FOTC SITREP option to synchronize the coordinator with the participants when in FOTC mode.

Note: When this function is accessed, the FOTC broadcast is placed in a paused mode, until the function is exited. See *Using the FOTC SITREP option* for details.

To access this window: (Be in FOTC Coordinator or Participant mode.) FOTC/BCST menu **:** FOTC SITREP option **:** FOTC SITREP – BCST PAUSED window (Figure13.6-1).

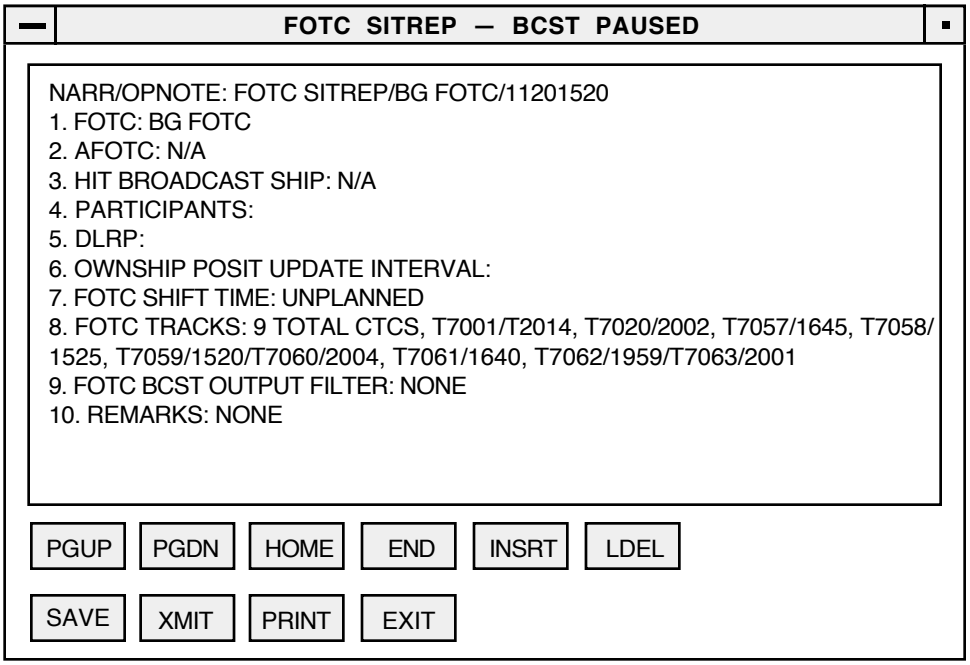


Figure13.6-1 FOTC SITREP Window

The FOTC SITREP – BCST PAUSED window contains information about the FOTC database, such as the names of the FOTC Coordinator and participants, and a list of all FOTC tracks.

FOTC SITREP Window Buttons

PGUP and PGDN—shows the next page of information in an upwards or downwards direction.

HOME—shows the first page of data.

END—shows the last page of data.

INSRT—inserts a blank line above the currently selected line, to enter data.

LDEL—deletes the currently selected line.

SAVE—saves changes to FOTC SITREP window.

XMIT—broadcasts a FOTC SITREP.

1. To broadcast a FOTC SITREP, the workstation must be designated the FOTC Coordinator.
2. Click OK to open the MSG HEADER window.

3. Enter the header information for the FOTC Coordinator and participants and click OK to open the SELECT OUTPUT COMMS CHANNEL window.
4. Select the communications channel from the choices listed.
5. Click OK to send the SITREP to the FOTC participants.

PRINT—generate a printed copy of the information contained in the window.

EXIT—closes the window without sending a FOTC SITREP.

FOTC SITREP Window Fields

The following information is shown on the individual lines of the FOTC SITREP window:

#1 FOTC
FOTC's Command.

#2 AFOTC
Alternate FOTC's Command.

#3 HIT BROADCAST SHIP
Command of the ship broadcasting the FOTC HIT broadcast.

#4 PARTICIPANTS
List of the participants in the FOTC group.

#5 DLRP
Data Link Reference Point (DLRP). This is a lat/long point set—*for Link A only*—with the LINK DLRP option from the TRACKS menu.

Links B, C, and D DLRPs are not relevant to the FOTC broadcast.

#6 OWNSHIP POSIT UPDATE INTERVAL
Time interval for sending new Ownship track updates to FOTC.

#7 FOTC SHIFT TIME
Date-time group when FOTC shifts out of FOTC Coordinator mode. (FOTC responsibilities are shifted to another unit.)

#8 FOTC TRACKS
Track numbers for the FOTC tracks.

#9 FOTC BCST OUTPUT FILTER
If a FOTC broadcast output filter is set, the filter type is shown, along with the filter settings. Only tracks within the filter containment area (e.g., inside the circle's radius) will be contained in the FOTC broadcast. Filter types:

No filter—NONE.

Box filter—BOX, followed by the upper-left lat/long point, then the lower-right lat/long point for the box.

Circle filter—CIRCLE, followed by the center point of the circle, then the radius of the circle (in NM).

Polygon filter—POLY, followed by the number of endpoints for the polygon, then the individual lat/long of each endpoint. (Note: This option is not currently implemented for the FOTC broadcast.)

Track filter—TRACK, followed by the track number, the first ten characters of the track name, and the range from the track (in NM).

#10 REMARKS

Remarks about the FOTC SITREP.

Using the FOTC SITREP option:

1. As soon as the FOTC SITREP option is selected from the FOTC/BCST pull-down menu:
   - All tracks currently queued for the next broadcast cycle (typically 10 minutes) will be automatically transmitted from the FOTC to each of the participants.
   - The STATUS of the FOTC broadcast changes from ON in the BROADCAST window to PAUSE (Figure 13.6-2).
2. The FOTC SITREP – BCST PAUSED window appears (see Figure 13.6-1).
   a. Review/edit the message.
   b. Click XMIT to transmit the message to the participants.
   c. The following message appears: "FOTC SITREP TRANSMITTED. A NEW FOTC BROADCAST CYCLE TIME WILL START WHEN THIS WINDOW IS EXITED."
3. When the user message window is exited, the STATUS of the FOTC in the BROADCASTS window changes from PAUSE to ON.
4. Note: While the FOTC broadcast is in PAUSE status, nothing is transmitted from the FOTC *until* EXIT is clicked from the FOTC SITREP – BCST PAUSED window, or the user transmits a SITREP and exits the user message window.
   - If the FOTC broadcast has been inadvertently paused for a long time (for example, the SITREP window has been iconified or obscured by another window), a maximum of 1000 tracks will be queued.
   - If this 1000 track limit is exceeded, the broadcast will temporarily restart and transmit tracks to avoid data loss; however, the broadcast will remain paused.

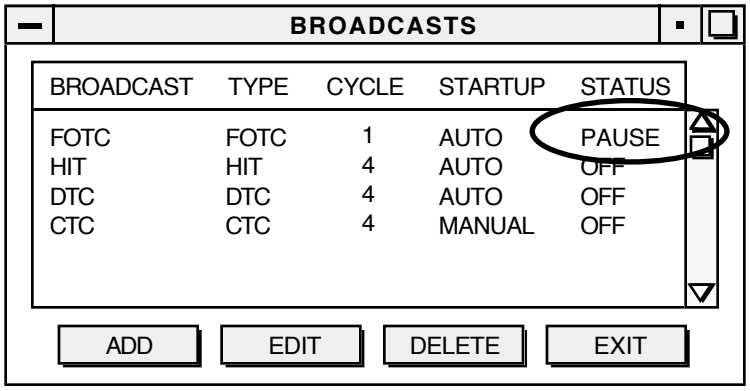


Figure 13.6-2 Broadcast window in PAUSE status.

13.7 FOTC SITREP SUMMARY

FOTC Participants use the FOTC SITREP SUMMARY option to determine critical differences between their track database and FOTC's track database.

- The FOTC Coordinator does not use this option. The FOTC Coordinator uses the FOTC SITREP option to send FOTC SITREP information to FOTC Participants.
- When a FOTC SITREP is sent by the FOTC Coordinator, a database comparison is automatically generated by each FOTC Participant.
- This option shows the discrepancies between the FOTC track database and the Participant track database.
- This option does not provide any meaningful information for non-FOTC Participants.

To access this window: FOTC/BCST menu **:** FOTC SITREP SUMMARY option **:** INCOMING FOTC SITREP window (Figure13.7-1).

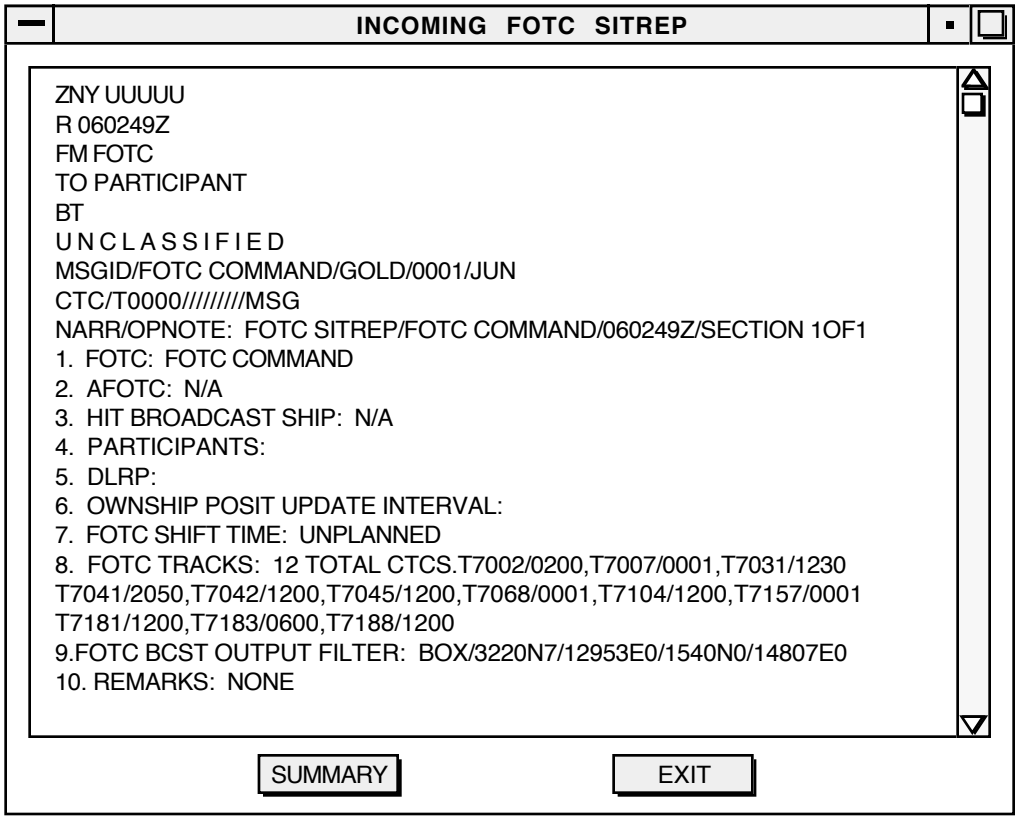


Figure13.7-1 Incoming FOTC SITREP Window

About the INCOMING FOTC SITREP window:

- Information shown in this window is the same as that found in the FOTC SITREP window (accessible from the FOTC SITREP option).
- Refer to the *FOTC SITREP* section for a complete description of all lines in this window.
- Use the HARDCOPY option from the pop-up menu to generate a printed report of the information shown in this window.
- Use the SUMMARY button to view the differences between the FOTC track database and the Participant track database.
- Use the EXIT button to leave the FOTC SITREP SUMMARY option.

Click SUMMARY to open the FOTC SITREP TRACK SUMMARY window (Figure13.7-2).

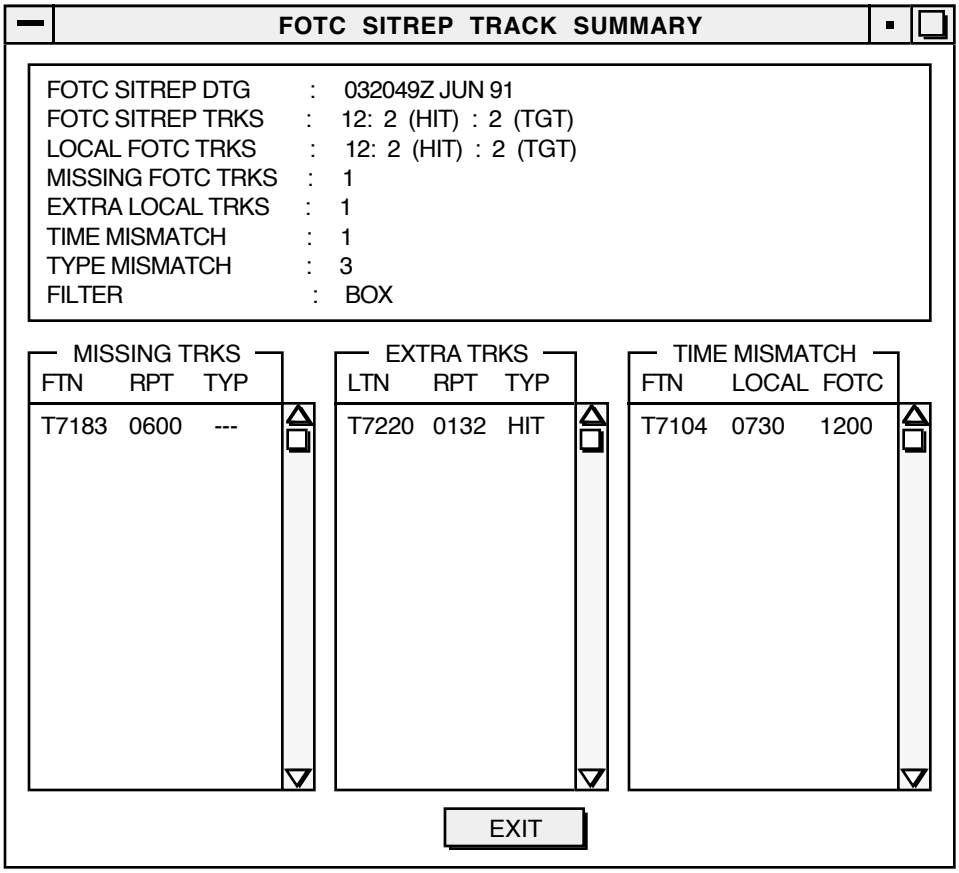


Figure13.7-2 FOTC SITREP Track Summary Window

About the FOTC SITREP TRACK SUMMARY window:

- Only those tracks in the Participant database with reports older than the FOTC SITREP DTG are used for the comparison.
- All information in the FOTC SITREP TRACK SUMMARY window is view-only and cannot be edited.
- If the FOTC SITREP TRACK SUMMARY window is opened before all data is received from the FOTC Coordinator, a message states that the information is incomplete. To view complete information, exit from this window, wait until all data is received, then reopen the window.
- The FOTC SITREP TRACK SUMMARY window contains a general information area and three boxes of information about the differences between the FOTC track database and the Participant track database.
- Use the HARDCOPY option from the pop-up menu to generate a printed report of the information in the window.
- Use the EXIT button to return to the INCOMING FOTC SITREP window.

General Information Area

FOTC SITREP DTG
Time when the FOTC SITREP was created.

FOTC SITREP TRKS
Total number of tracks in the FOTC database, followed by the number of these that are High Interest Tracks (HIT), then the number of Target (TGT) tracks.

LOCAL FOTC TRKS
Total number of FOTC tracks in the local database, followed by the number of these that are HIT tracks, then the number of TGT tracks.

MISSING FOTC TRKS
Number of tracks that exist in the FOTC track database but do not exist in the Participant track database.

EXTRA LOCAL TRKS
Number of tracks which exist in the Participant track database but do not exist in the FOTC track database.

TIME MISMATCH
Number of tracks that exist in both the FOTC and the Participant track databases, but have a difference in the most recent report.

TYPE MISMATCH
Number of tracks that exist in both the FOTC and the Participant track database, but have differing types between the two databases.

FILTER
If there is a filter in use for the FOTC reporting area, this field shows the type of filter.

MISSING TRKS Box

Lists all FOTC tracks that are missing from the Participant track database. The following columns are shown:

FTN
FOTC track number.

RPT
Time of the latest report for the track, displayed in hours and minutes.

TYP
Track type, either HIT, TGT, or three dashes (---). Three dashes indicate it is not a HIT or TGT track.

EXTRA TRKS Box

Lists all tracks in the Participant track database that do not exist in the FOTC track database. The following columns are shown:

LTN
Local track number.

RPT
Time of the latest report for the track, displayed in hours and minutes.

TYP
Track type, either HIT, TGT, or three dashes (---). Three dashes indicate it is not a HIT or TGT track.

TIME MISMATCH Box

Lists all tracks that exist in both the FOTC and the Participant track database, but the most recent report differs between the two databases. Note: Reports for Participant tracks are only considered if they have event DTG prior to the FOTC SITREP DTG; otherwise, the track's history is searched until the most recent such report is found. The following columns are shown for each of the listed tracks:

FTN
FOTC track number.

LOCAL
Time of the latest report for the track in the Participant database, displayed in hours and minutes.

FOTC
Time of the latest report for the track in the FOTC database, shown in hours and minutes.

13.8 BROADCASTS

Use the BROADCASTS option to send DTC, HIT, FOTC, and other broadcast communications.

To access this window: FOTC/BCST menu **:** BROADCASTS option **:** BROADCASTS window (Figure 13.8-1).

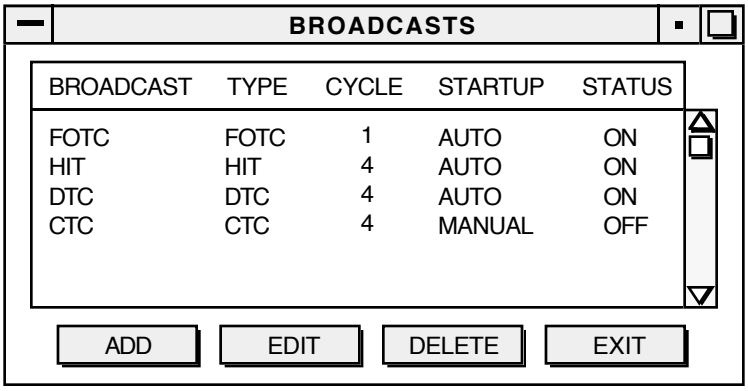


Figure13.8-1 Broadcast Window

The BROADCASTS window lists all communications broadcasts in the system.

BROADCASTS Window Buttons

ADD—a broadcast channel. Described in *Add a Broadcast Channel*.

EDIT—a broadcast channel. Described in *Edit a Broadcast Channel*.

DELETE—a broadcast channel.

1. FOTC, DTC, or HIT broadcasts cannot be deleted, however, other broadcasts can be deleted.
2. Select one or more allowable broadcasts from the BROADCASTS window.
3. Click DELETE. The selected broadcasts are removed from the system.

EXIT—the BROADCASTS option and close the window. The broadcast options that are turned on continue to run.

BROADCASTS Window Pop-up Menu Options

Pop-up menu options (described in *BROADCASTS Pop-up Menu*): ADD, DELETE, EDIT, EXIT, SELECT ALL, START, STOP, UNSELECT ALL, and WINDOW.

BROADCASTS Window Fields

The following columns are shown in the window:

BROADCAST
Name of the broadcast.

TYPE
Broadcast type.

CYCLE
Number of minutes between broadcast cycles.

STARTUP
Startup status for the broadcast channel, either AUTO or MANUAL.

AUTO: The broadcast channel is automatically turned on at system startup.

MANUAL: The broadcast channel must be manually turned on using the BROADCASTS option.

STATUS
Status of whether the broadcast is currently running or not. Use the START and STOP pop-up options to change the status of a broadcast.

13.8.1 ADD A BROADCAST CHANNEL

Additional CTC or WAN broadcasts—up to a maximum of 15 total broadcasts (12 CTC)—may be added to the system. However, additional FOTC, HIT, or DTC broadcasts *cannot be added*. To add a new CTC or WAN broadcast:

Click ADD from the BROADCASTS window to open the ADD BROADCAST window (Figure13.8 -2).

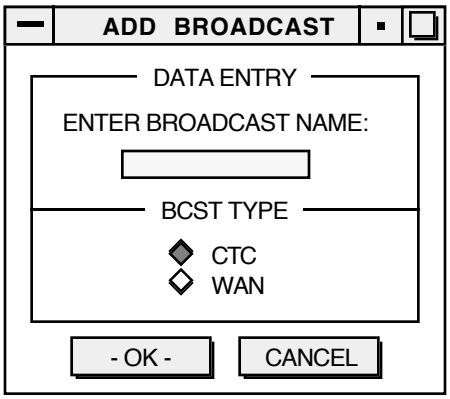


Figure13.8-2 Add Broadcast Window

1. Enter a name for the new CTC or WAN broadcast.
2. Click the appropriate broadcast type (BCST TYPE) diamond knob.
3. Click OK to accept it, or click CANCEL to discard it.

13.8.2 EDIT A BROADCAST CHANNEL

To view or edit the settings for a broadcast channel:

1. Select the channel from the BROADCASTS window.
2. Click EDIT to open the EDIT BROADCAST window.
3. The EDIT BROADCAST window has several appearances, depending on the broadcast type chosen. The window buttons are always the same.

EDIT BROADCAST Window Buttons

HEADER—specifies the recipients of a broadcast.

1. Click HEADER to open the HEADER EDIT window.
2. Enter the appropriate names to specify the sender and receivers of broadcast messages.
3. For more information about the HEADER EDIT window, refer to the *MSG HEADERS* section in the COMMS chapter.

FILTER—identifies a geographical area or the type of tracks to be monitored.

1. Click FILTER to open the DATABASE SEARCH window.
   a. This same window appears when using the SEARCH option from the TRACKS pull-down menu.
   b. In this instance, the window is used to isolate a region of interest for the broadcast, or to choose a track type or CAT/THREAT type for tracks that are to be monitored.
2. Use the fields, checkboxes, and diamond knobs on this window to choose the specific geographical area or the specific track types to be monitored.
3. Click OK to accept entries, or click CANCEL to discard the entries.

OK—saves new settings and closes the window.

CANCEL—discards new settings and closes the window.

Edit a FOTC, HIT, or DTC Broadcast

Figure13.8-3 shows the EDIT BROADCAST window for a FOTC broadcast.

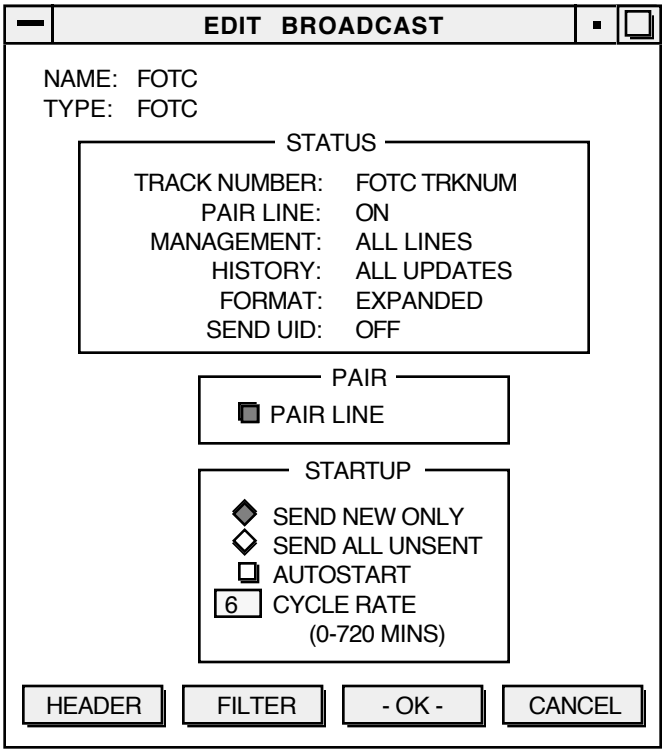


Figure 13.8-3 Edit Broadcast Window for FOTC, HIT, DTC Broadcast

The NAME and TYPE of the selected broadcast appear at the top of the window. They are view-only and cannot be edited.

STATUS Box: Shows status information about current settings for the channel. Fields in this box are view-only and cannot be edited.

TRACK NUMBER

Type of track number sent for the broadcast.

FOTC and HIT broadcasts—FOTC track number is sent.

DTC broadcasts—local track number is sent.

PAIR LINE

Indicates whether or not the pair line setting is turned on.

FOTC and DCT broadcasts—pair line setting is controlled through the PAIR LINE checkbox in this window.

HIT broadcasts—there is no PAIR box; this field is always set to OFF.

MANAGEMENT

Type of management lines sent out for each track when an update is transmitted.

FOTC and DTC broadcasts—ALL LINES is shown. All management lines are sent with track updates, including such information as track deletions and track merges.

HIT broadcasts—DELETE ONLY is shown. Only the normal track update information and track deletion information is sent.

HISTORY

Indicates whether all updates or only the last update for tracks are sent with the broadcast.

FOTC, HIT, and DTC broadcasts—all updates are sent.

FORMAT

Indicates whether the information is sent in expanded or compressed format for the broadcast.

FOTC and DTC broadcasts—information is sent in expanded format. All available new information for a track is sent with the update. This includes signa data, tech data, remarks, position, and other information.

HIT broadcast—information is sent in compressed format. Only the position information is sent.

SEND UID

This field has no effect for FOTC, HIT, or DTC broadcasts, and is always set to OFF.

PAIR box:

Appears for FOTC and DTC broadcasts, but not for HIT broadcasts. This box contains only a PAIR LINE checkbox.

If ON, send a pair line containing a list of received track numbers for a track, such as the local track numbers from another ship. These additional track numbers allow other commands to send track updates based on these track numbers.

If a ship is a participant in BGDBM mode, updates from ships other than the coordinator must go through a special correlation process called Single Candidate Validation before being accepted. Only limited information is accepted from an update report received from a source other than the coordinator, such as position information and information that fills blank fields. Most fields already containing information will not be overwritten.

STARTUP box

Specifies whether all data or only new data is sent at broadcast startup, and sets the cycle time for broadcasts. The settings in this box can be modified for any of the broadcasts in the system.

SEND NEW ONLY (Diamond Knob)
On broadcast startup, no track data is sent.

SEND ALL UNSENT (Diamond Knob)
On broadcast startup, sends all track data not previously sent.

AUTOSTART
Use the AUTOSTART checkbox to specify whether the broadcast is turned on at startup. It is a good idea to always have the AUTOSTART box selected when operating in the FOTC environment.

If the AUTOSTART checkbox is set and the FOTC Broadcast is not currently running, the broadcast automatically starts when OK is clicked to save the changes in the EDIT BGDBM CONFIGURATION window.

If the AUTOSTART checkbox is not set and the FOTC Broadcast is not currently running, use the BROADCASTS option from the FOTC/BCST menu to manually start the broadcast.

CYCLE RATE
Set the time interval between transmissions of the broadcast beginning at broadcast startup. Enter the cycle time in minutes.

Edit a CTC or WAN Broadcast

Figure13.8-4 shows the EDIT BROADCAST window for a CTC broadcast.

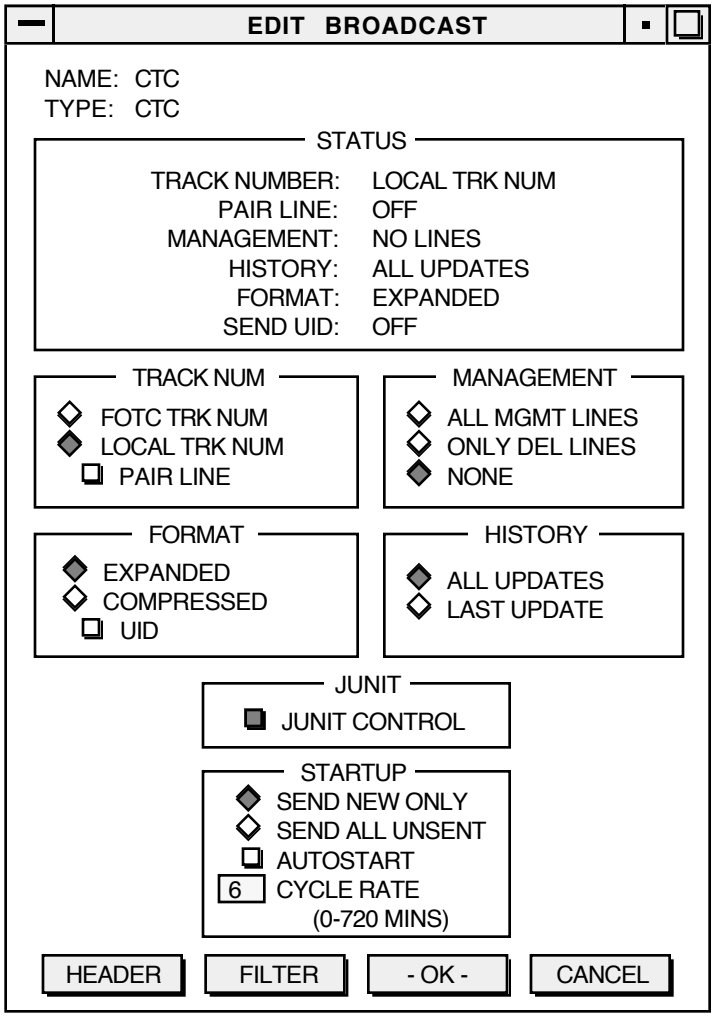


Figure 13.8-4 Edit Broadcast Window for CTC or WAN Broadcast

The NAME and TYPE of the selected broadcast appear at the top of the window. They are view-only and cannot be edited.

STATUS Box

Shows status information about current settings for this channel. Fields in this box are view-only and cannot be edited.

TRACK NUMBER
Type of track number sent for the broadcast.

PAIR LINE
Shows whether or not the pair line setting is turned on. The pair line setting is controlled through the PAIR LINE checkbox in the TRACK NUM box in this window.

MANAGEMENT
Type of management lines sent out for each track when an update is sent.

ALL LINES: All management lines are sent with track updates, including such information as track deletions and track merges.

DELETE ONLY: Only the normal track update information and track deletion information is sent.

NO LINES: Nothing except normal track update information is sent.

HISTORY
Indicates whether all updates or only the last update for tracks are sent with the broadcast.

FORMAT
Indicates whether the information is sent in expanded or compressed format for the broadcast.

Expanded format—all available new information for a track is sent with the update. This includes such things as signa data, tech data, remarks, and other information as well as the position.

Compressed format—only the position information is sent.

SEND UID
Shows ON if UIDs are to be sent with the broadcast, or OFF if UIDs are not to be sent.

TRACK NUM Box

Indicate which track number is sent for the broadcast.

1. Select the type of track number—FOTC or local track number.
2. Click the PAIR LINE checkbox to send a pair line containing a list track numbers that have been received for a track, such as the local track numbers from another ship. These additional track numbers allow other commands to send track updates based on these track numbers.

MANAGEMENT Box

Choose the type of management lines sent for each track.

- ALL MGMT LINES: Send all management lines with the track updates, including such information as track deletions and track merges.
- ONLY DEL LINES: Include only track deletions in addition to the normal track update information.
- NONE: Include nothing except the normal track update information.

FORMAT Box

Choose the format for the broadcast.

1. Select the format—expanded or compressed.
   - EXPANDED—all available new information for a track is sent with the update. This includes such things as signa data, tech data, remarks, and other information, as well as the position.
   - COMPRESSED—only the position information is sent.
2. Click the UID checkbox to generate Unique IDs for the broadcast.

HISTORY Box

Choose whether all updates or only the last update for tracks are sent with the broadcast.

- ALL UPDATES: Send all updates that have been received for the tracks since the last broadcast.
- LAST UPDATE: Send only the most current report update for the tracks.

JUNIT Box

Optionally encodes JUNIT messages to seconds and tenths of seconds, according to report precision. To enable encoding, click the diamond knob.

STARTUP Box

Choose whether all data is sent or only new data at broadcast startup, and set the cycle time for messages to be broadcast.

SEND NEW ONLY (Diamond Knob)
On broadcast startup, no track data is sent.

SEND ALL UNSENT (Diamond Knob)
On broadcast startup, sends all track data not previously sent.

AUTOSTART
Use the AUTOSTART checkbox to specify whether the broadcast is turned on at startup. It is a good idea to always have the AUTOSTART box selected when operating in the FOTC environment.

If the AUTOSTART checkbox is set and the FOTC Broadcast is not currently running, the broadcast automatically starts when OK is clicked to save the changes in the EDIT BGDBM CONFIGURATION window.

If the AUTOSTART checkbox is not set and the FOTC Broadcast is not currently running, use the BROADCASTS option from the FOTC/BCST menu to manually start the broadcast.

CYCLE RATE

Set the time interval between transmissions of the broadcast beginning at broadcast startup. Enter the cycle time in minutes.

13.8.2.1 Create and Activate a GCCS WAN Broadcast

1. Create an Auto Forward Table for the Broadcast. This determines the destination for the broadcast track data. Refer to the Auto Forward Table instructions.
2. From the FOTC/BCST pull-down menu, select BROADCASTS. The BROADCASTS window appears, displaying default FOTC, CTC, DTC, and HIT broadcasts. These broadcast types cannot be deleted and should not be modified or started in a GCCS environment.

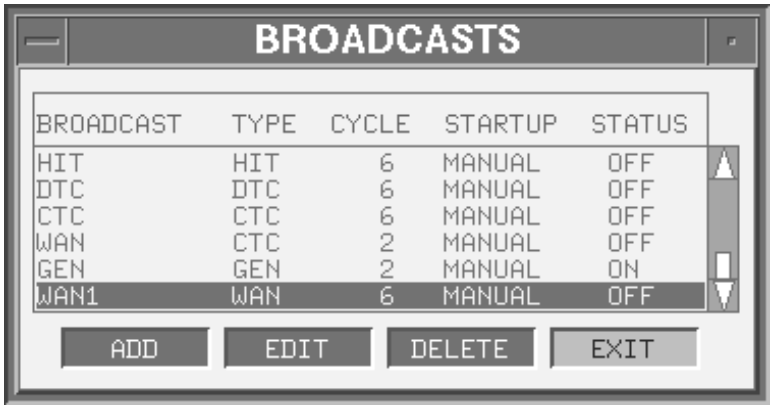


Figure 13.8-5 BROADCASTS Window

3. In the BROADCASTS window, click ADD. The ADD BROADCAST window appears displaying CTC, WAN or GEN Broadcasts and prompting for a broadcast name. (Note: If GEN Broadcast has been disabled by the System Administrator, as described in Section 5.3.5 of the *System Administrator's Guide*, GEN will not appear as a broadcast option in this window.)

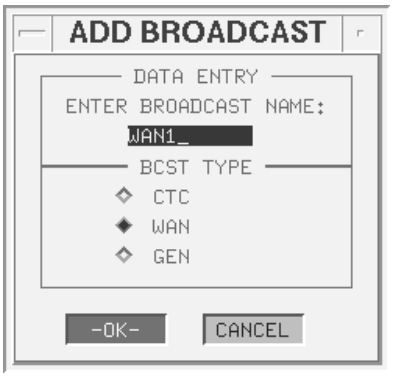


Figure 13.8-6 ADD BROADCAST Window

4. In the ADD BROADCASTS window, select the WAN toggle, enter a broadcast name (do not use slashes), and click OK. The BROADCAST window appears, displaying an entry for the new WAN broadcast.

5. Click the broadcast name once to select it then click EDIT. The EDIT (WAN) BROADCAST window appears.

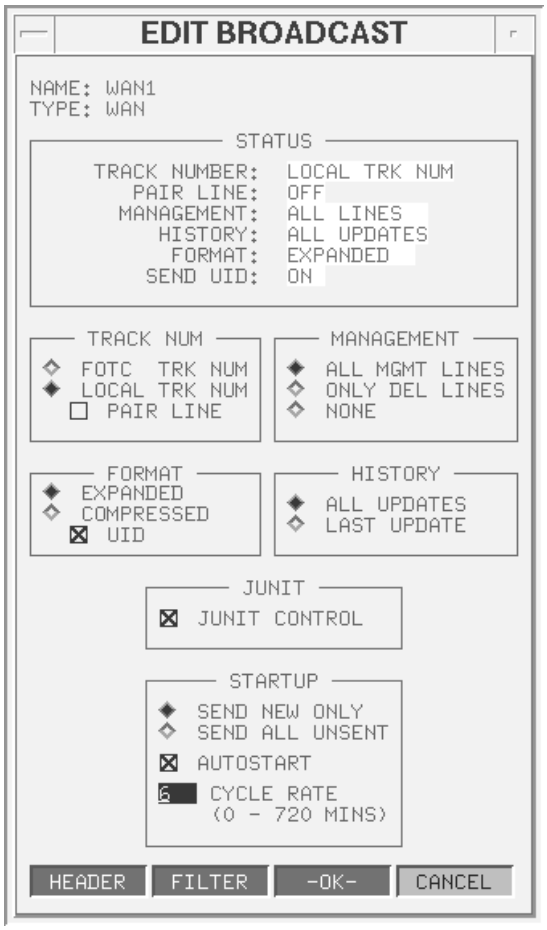


Figure 13.8-7 EDIT (WAN) BROADCAST Window

6. Configure the WAN broadcast settings as follows:

   a. Set the status by selecting the diamond knobs in the TRACK NUM, MANAGEMENT, FORMAT, HISTORY, and STARTUP boxes. As you select and deselect the diamond knobs, the fields in the STATUS box automatically update to reflect the changes. Modify the PAIR LINE and SEND UID fields as well as the JUNIT CONTROL and AUTOSTART clickboxes.

      Settings for these parameters should be specific to your requirements, but short definitions and suggested settings are listed below:

Field/Box/Knob	Selection Suggestions and Definitions.
TRACK NUM	Select LOCAL TRK NUM. FOTC TRK NUM should not be used in a GCCS environment.
MANAGEMENT	If the system will be in UID Correlation mode, select ALL MGMT LINES. This will send DELETE and MERGE messages to update the track database at the destination JMCIS system. Selecting ONLY DEL LINES will send DELETE messages but not MERGE messages. Selecting NONE will send new track messages and updates, but no DELETE or MERGE lines. This requires an operator at the destination JMCIS system to manage the track database. Otherwise the track database will fill and cease processing incoming messages.
FORMAT	Selecting EXPANDED will send track messages with any remarks associated with the track. Selecting COMPRESSED will send track messages without associated remarks.
HISTORY	Selecting ALL UPDATES will send each track update received since the last Broadcast cycle. Selecting LAST UPDATE will send only the latest track update at the next broadcast cycle.

JUNIT	Select JUNIT control to allow J-Unit messages to be controlled in a track broadcast.
STARTUP	Selecting SEND NEW ONLY will send track messages for updates received after the broadcast is started. Selecting SEND ALL UNSENT will send all track updates not sent since the broadcast was last active.
AUTOSTART	Selecting AUTOSTART automatically turns on the Broadcast when JMCIS is started. If unselected, a user must manually start the broadcast after starting JMCIS.
CYCLE RATE	Enter an interval for the Broadcast to send data. Although JMCIS will accept 0, entering a cycle rate of 2 or more minutes will give better performance. Selection Suggestions and Definitions.
TRACK NUM	Select LOCAL TRK NUM. FOTC TRK NUM should not be used in a GCCS environment.
MANAGEMENT	If the system will be in UID Correlation mode, select ALL MGMT LINES. This will send DELETE and MERGE messages to update the track database at the destination JMCIS system. Selecting ONLY DEL LINES will send DELETE messages but not MERGE messages. Selecting NONE will send new track messages and updates, but no DELETE or MERGE lines. This requires an operator at the destination JMCIS system to manage the track database. Otherwise the track database will fill and cease processing incoming messages.
FORMAT	Selecting EXPANDED will send track messages with any remarks associated with the track. Selecting COMPRESSED will send track messages without associated remarks.

HISTORY	Selecting ALL UPDATES will send each track update received since the last Broadcast cycle. Selecting LAST UPDATE will send only the latest track update at the next broadcast cycle.
JUNIT	Select JUNIT control to allow J-Unit messages to be controlled in a track broadcast.
STARTUP	Selecting SEND NEW ONLY will send track messages for updates received after the broadcast is started. Selecting SEND ALL UNSENT will send all track updates not sent since the broadcast was last active.
AUTOSTART	Selecting AUTOSTART automatically turns on the Broadcast when JMCIS is started. If unselected, a user must manually start the broadcast after starting JMCIS.
CYCLE RATE	Enter an interval for the Broadcast to send data. Although JMCIS will accept 0, entering a cycle rate of 2 or more minutes will give better performance.

7. After selecting toggles, click HEADER in the EDIT BROADCAST window. A HEADER window appears.

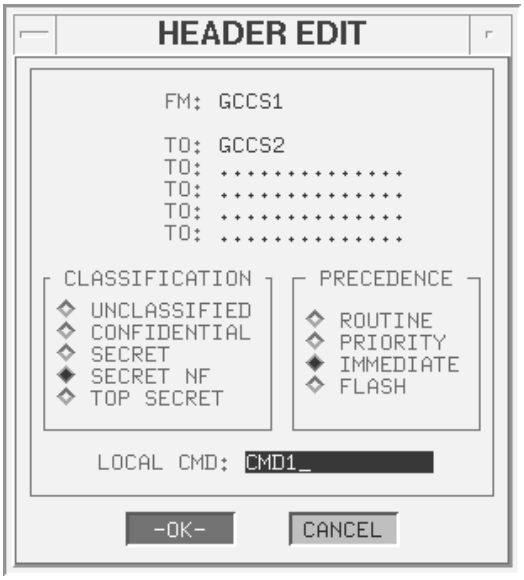


Figure 13.8-8 HEADER EDIT Window

In the TO: line, type exactly what was entered in the TO: line in the Auto-Forward table that is used for the broadcast. The broadcast will send data to destinations selected in the Auto-Forward table.

8. Enter the local site name in the FROM: line and the COMMAND line.
9. In the HEADER EDIT window, click OK. The EDIT BROADCAST window appears.
10. In the EDIT BROADCAST window, click FILTER. The DATABASE SEARCH window appears.

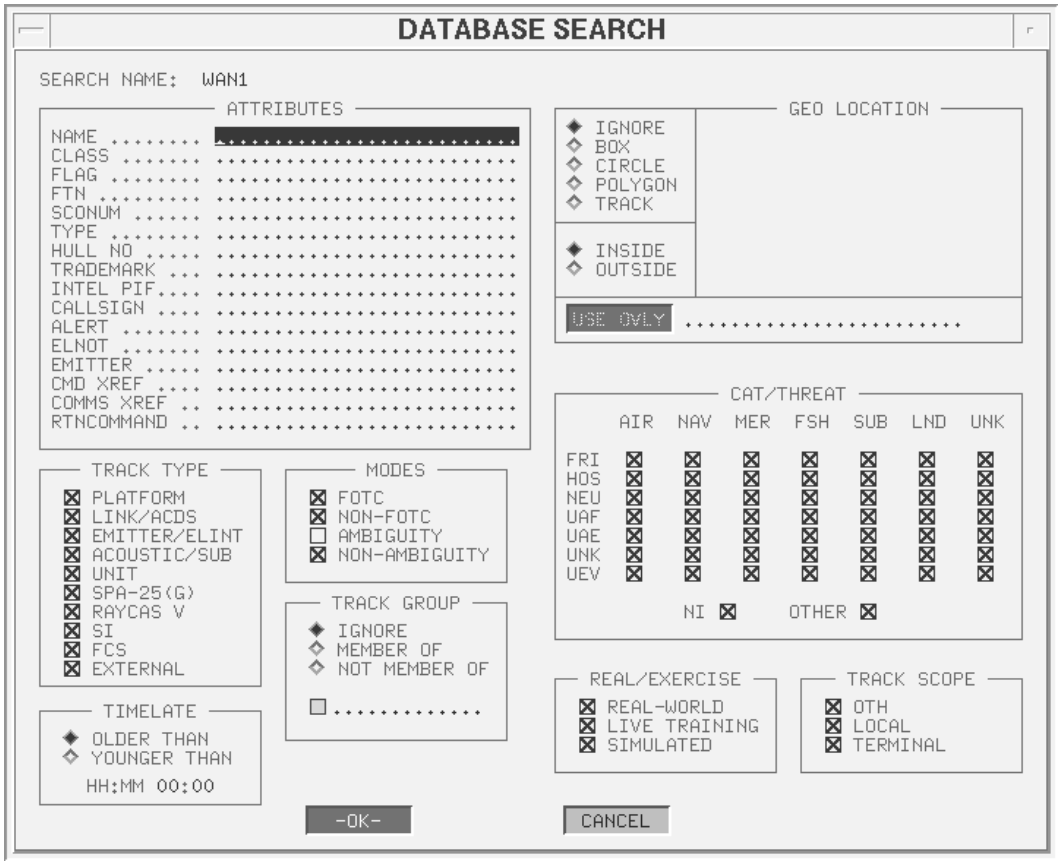


Figure 13.8-9 DATABASE SEARCH Window

11. Click OK in the window without making any changes to configure the broadcast to send ALL OTH Platform tracks in the local database. The window may also be modified to send only specific tracks by type, threat, flag, etc.
12. In the EDIT BROADCAST window, click OK. The BROADCASTS window appears.
13. In the EDIT BROADCAST window, click on the WAN broadcast just created to select it, then click the right track ball button to view the pop-up menu. Select START.

The broadcast will start if properly configured. If a No Auto Forward Entry... error message appears:

- Confirm an Auto Forward Table for the Broadcast is entered and active.
- Confirm the TO: line in the Broadcast Header and the TO: line in the Auto Forward Table match exactly.

14. To ensure the Broadcast is sending data as specified, in the BROADCASTS window, click on the WAN broadcast to select it and select WINDOW from the pop-up menu. A(WAN) BROADCAST raw data window appears, displaying all messages sent by the broadcast.

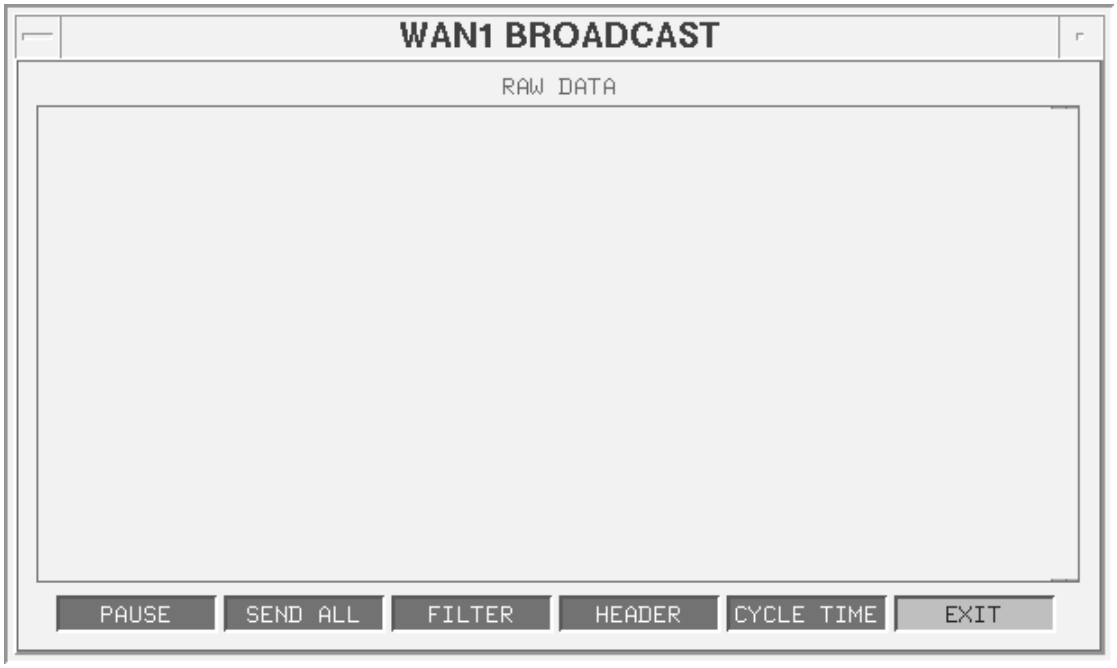


Figure 13.8-10 (WAN) BROADCAST Raw Data Window

13.8.2.2 Create and Activate a GEN Broadcast

The Joint Maritime Command Information System (JMCIS) General Service Broadcast (GEN BROADCAST) function provides the interface for JMCIS to broadcast information from one local area network (LAN) to another (receiving) LAN. The GEN BROADCAST function consists of the following components: a direct serial communications interface, a broadcast channel, and the supporting user interface windows. The interface on the transmitting LAN communicates with the receiving LAN in a non-OTH-T Gold-compliant format. The GEN BROADCAST function resides on top of existing software on a node of a GCCS LAN.

Interface to GEN BROADCAST capabilities is achieved through several options on the JMCIS menu. During GEN BROADCAST functions, complete JMCIS functionality is preserved.

The GEN BROADCAST hardware configuration includes a GCCS workstation (Sparc SUN or TAC-3) on both LANs, both loaded with GCCS software with the GEN BROADCAST functionality.

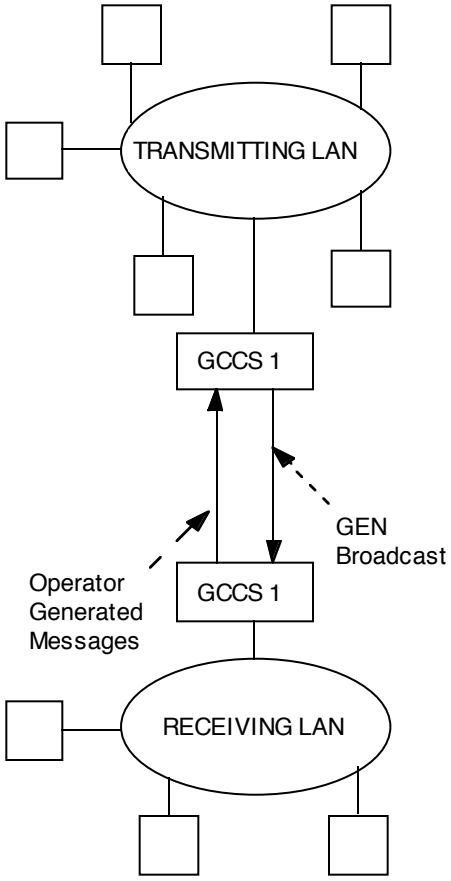


Figure 13.8-11 Typical Configuration for Data Exchange Between Two LANs

GEN BROADCAST is installed on a GCCS workstation designated for connection to another system/LAN. During GCCS installation, the GEN BROADCAST functionality is loaded into the GCCS parent disk with GCCS software.

Note: When GCCS has completed start-up and the GCCS tactical display appears, the System Administrator must enable GEN Broadcast, as described in Section 5.3.4 of the *System Administrator's Guide,* before GEN Broadcast is available to the GCCS user.

GEN BROADCAST windows resemble other JMCIS windows in appearance as well as operating methods.

All figures in this manual are designed to resemble on-screen graphics as closely as possible. Figure dimensions do not necessarily match the dimensions of actual windows, and window fields contain *example* data. All figures should be used for reference purposes only.

This manual frequently refers to selecting one or more items from a list in a window before performing an operation on the item(s). Select the desired item(s) as follows:

- For a single item, click the item once.
- For multiple items, either click each item individually or click one item and drag the pointer over a group of items.
- For all items, use the SELECT ALL option, if present, on the window's pop-up menu.

Please note that certain GEN BROADCAST functions currently under development may not yet be fully documented herein.

To broadcast using GEN BROADCAST:

GEN BROADCAST operates on top of existing JMCIS software and uses many of the available JMCIS options to deliver data to the GEN BROADCAST user interface. The track database, tactical display, and other features of the JMCIS software interact with GEN BROADCAST data to allow track data to be processed into messages which can then be broadcast.

Once a GEN BROADCAST interface has been created, GEN BROADCAST messages will be processed through the GEN BROADCAST interface from a GCCS LAN to another (receiving) system/LAN. A comms raw data window provides a method to view the GEN BROADCAST messages as they are being processed. Various JMCIS auto-forward, filtering and several GEN BROADCAST unique functions allow complete track management on the remote system/LAN.

To broadcast data from the GCCS LAN to the receiving system/LAN, you must follow these steps:

1. Activate the System Chart.

2. Create a Communications Channels.

3. Activate the Auto-Forward Table.

4. Activate UID Correlation.

5. Activate GEN Broadcast.

6. Broadcast Data.

To Activate the System Chart

The system chart must be activated before beginning GEN BROADCAST broadcasts. To launch the system chart, select SYSTEM CHART from the SYSTEM MENU BAR pull-down menu.

To Add a GEN Broadcast

1. Create an Auto Forward Table for the Broadcast. This determines the destination for the broadcast track data. Refer to the Auto Forward Table instructions.
2. From the FOTC/BCST pull-down menu, select BROADCASTS. The BROADCASTS window appears, displaying default FOTC, CTC, DTC, and HIT broadcasts. These broadcast types cannot be deleted and should not be modified or started in a GCCS environment.
3. In the BROADCASTS window, click ADD. The ADD BROADCAST window appears displaying CTC, WAN or GEN Broadcasts and prompting for a broadcast name. (Note: If GEN Broadcast has been disabled by the System Administrator, as described in Section 5.3.5 of the *System Administrator's Guide*, GEN will not appear as a broadcast option in this window.)
4. In the ADD BROADCASTS window, select the GEN toggle, enter a broadcast name (do not use slashes), and click OK. The BROADCAST window appears, displaying an entry for the new GEN broadcast.

To Create a Communications Channel

Before GEN BROADCAST can be used to broadcast messages from the GCCS LAN to the receiving system/LAN, you must create a communications channel between the two. GEN BROADCAST will operate over any standard OTH-Gold-capable type channel (e.g., Network, Serial, etc.). The ideal channel type for GEN BROADCAST is DIRECT, which prevents messages from being logged into the Outgoing Log. Create a DIRECT comms channel on both LANs and edit each channel's configuration as follows:

1. Select COMMUNICATIONS from the JMCIS COMMS pull-down menu. The COMMUNICATIONS window appears.

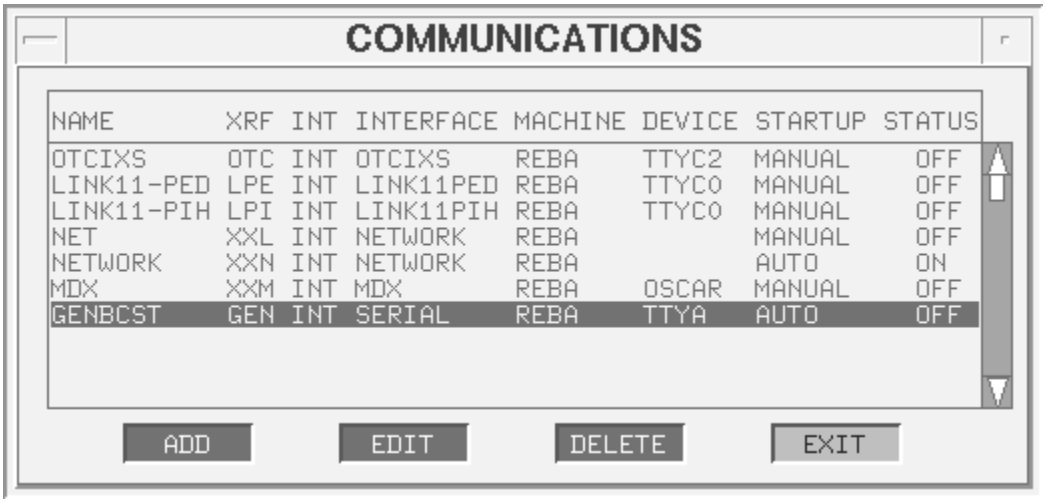


Figure 13.8-12 COMMUNICATIONS Window

2. Click ADD. The ADD CHANNEL window appears.

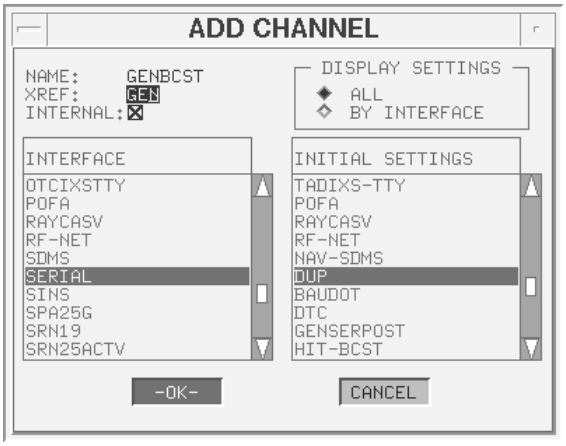


Figure 13.8-13 ADD CHANNEL Window

3. Establish the transmitting and receiving channels as follows:
   a. Enter a unique NAME for the channel and a unique, three-character cross-reference code (XREF).
   b. Toggle the INTERNAL checkbox ON.
   c. From the INTERFACE box, select DIRECT.
   d. Click OK to accept the new channel, and return to the COMMUNICATIONS window.
4. Edit the new channel's configuration as follows:
   a. In the COMMUNICATIONS window, select the desired channel from the list.

b. Click EDIT. The COMMS EDIT window appears.

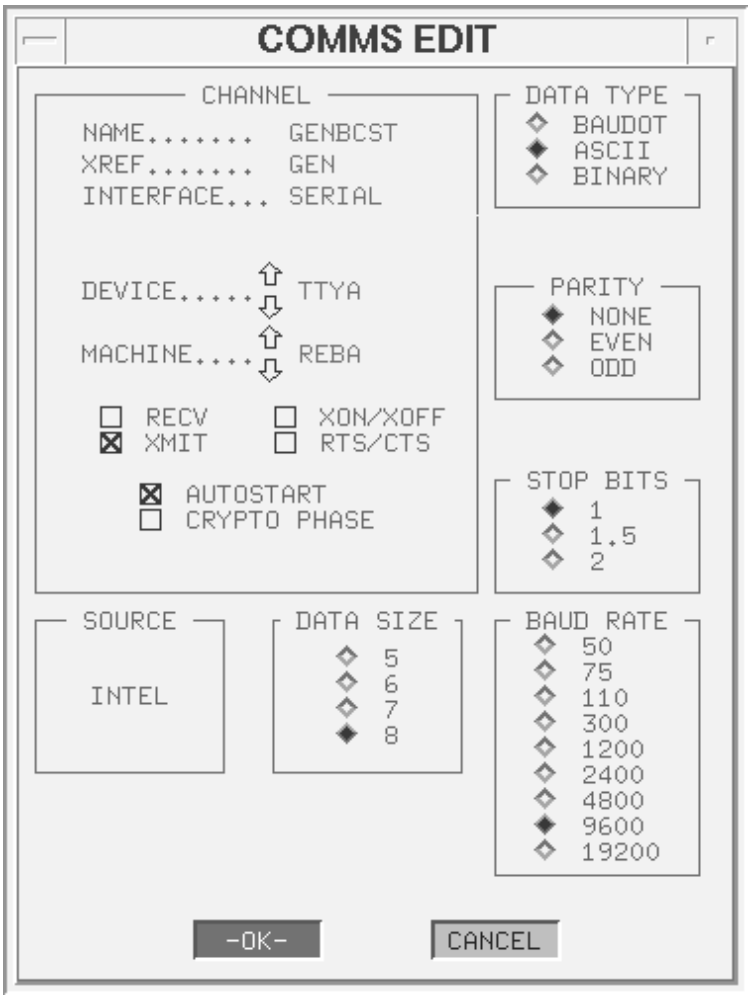


Figure 13.8-14 COMMS EDIT Window

c. Modify the data fields (DEVICE and MACHINE), clickboxes (RECV, XMIT, XON/XOFF, and RTS/CTS), and diamond knobs in the DATA SIZE, DATA TYPE, PARITY, STOP BITS and BAUD RATE boxes. Settings for these parameters should be specific to your requirements, but suggested settings are listed below:

Data Field/Clickbox/Diamond Knob Box	Setting
RECV (GCCS LAN)	OFF
XMIT (GCCS LAN)	ON
RECV (Other SYS/LAN)	ON
XMIT (Other SYS/LAN)	OFF
XON/XOFF	OFF
RTS/CTS	OFF
AUTOSTART	ON
DATA SIZE	8
DATA TYPE	ASCII
PARITY	NONE
STOP BITS	1
BAUD RATE	9600

Note: The communications parameters for the transmitting channel on the GCCS LAN and the communication parameters for the receiving channel on the other system/LAN must be configured identically on both sides.

If the receiving channel on the receiving system/LAN does not exactly match the configuration settings of the transmitting channel on the GCCS LAN, transmitted data will not be received across the channel.

d. Select the proper MACHINE designator and output DEVICE from the options available on each list.

e. Click OK to accept the changes.

5. Ensure that the comms channels on both LANs are ON. At this point, you may wish to open a raw data window for each channel. This will allow you to see the data flow across the communications channel between LANs.

To Activate the Auto Forward Table

Before messages may be broadcast from the GCCS (transmitting) LAN to the other (receiving) system/LAN, you must set up a broadcast destination in the auto-forwarding table. The destination channel set up in the GCCS LAN auto-forward table should be the receiving channel established on the other (receiving) system/LAN.

1. Select AUTO-FORWARD TABLE from the JMCIS COMMS pull-down. The MESSAGE AUTO FORWARD window appears.
2. Click ADD to add an auto-forward entry for GEN BROADCAST, or click EDIT to modify an existing entry in the auto-forward table. The ADD or EDIT AUTO-FORWARD window appears.
3. Add or edit an auto-forward entry for GEN BROADCAST as follows:
   a. Set the auto-forwarding criteria in the SRC CHANNEL field, SOURCE box, MSG TYPE box, and PRECEDENCE box. Settings for these parameters should be specific to your requirements, but suggested settings are listed below:

Data Field/Clickbox/Diamond Knob Box	Setting
SRC CHANNEL	DEFAULT
TO	(Other SYS/LAN)
MSG TYPE	ALL ON
PRECEDENCE	ALL ON
DESTINATION	(GEN BDCST CHANNEL NAME)

   b. Specify the routing information in the DESTINATION box.
   c. Toggle the ON/OFF checkbox ON to forward messages with the specified criteria.
   d. Click OK to add the entry to the auto-forward table.

To Activate UID Correlation

To activate correlation, the transmitting machine on the GCCS LAN must be configured with a valid UID prefix. The GCCS LAN System Administrator must assign the UID prefix.

IMPORTANT**:** Do not configure a UID prefix which is inappropriate for your site. The UID prefix must be properly managed to prevent duplication of a UID employed at another site. Duplicate UID prefixes will catastrophically affect track correlation.

UID track correlation must also be activated on the other (receiving) system/LAN before the track management features available in the GEN BROADCAST function may be fully realized. Activate the UID correlation on the LANs as follows:

1. From the FOTC/BDCST pull-down, select FOTC PARAMETERS. The EDIT BGDBM CONFIGURATION window appears.

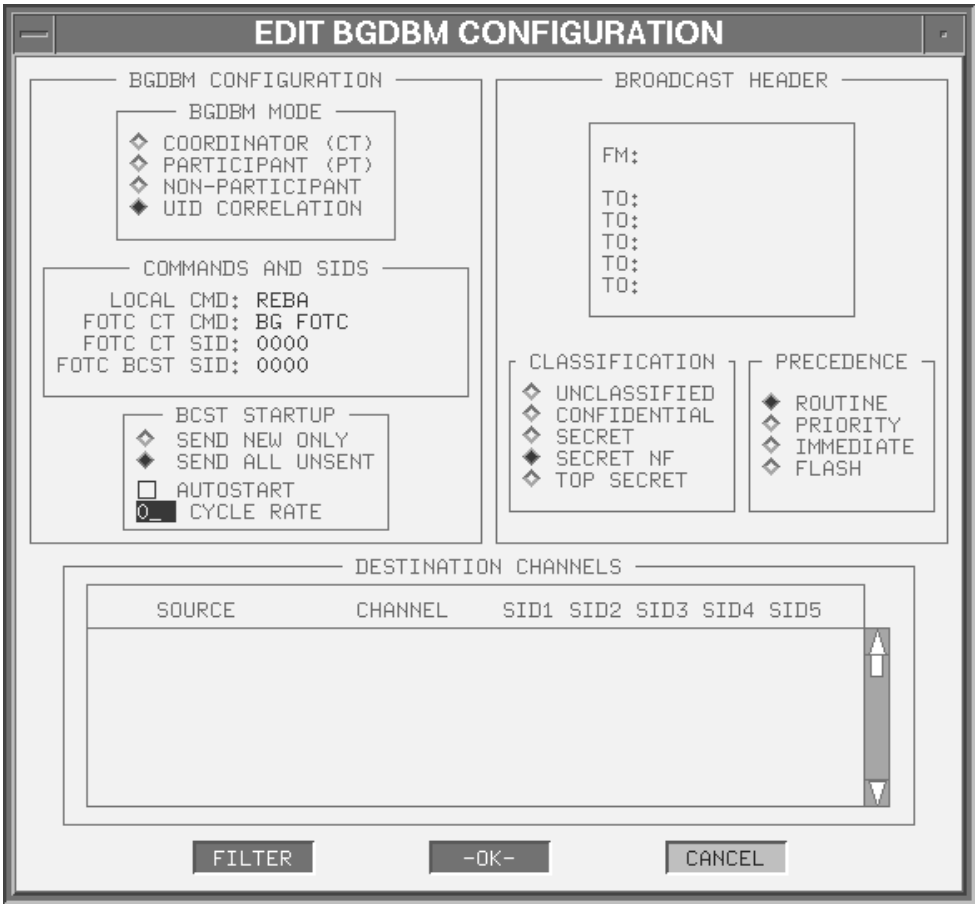


Figure 13.8-15 EDIT BGDBM CONFIGURATION *Window*

2. Ensure all fields are clear of any information. In the BGDBM CONFIGURATION box, set the BGDBM MODE diamond knob to UID CORRELATION.
3. Click OK to close the EDIT BGDBM CONFIGURATION window.
4. UID Correlation is now turned on. As GEN BROADCAST broadcasts updates, track correlation allows JMCIS to manage the tracks in the most efficient manner available.

To Activate GEN BROADCAST

Once you have established the comms channels on both LANs and set the proper auto-forward entry on the GCCS LAN, you must select GEN BROADCAST as the broadcast type on the GCCS LAN and edit the GEN BROADCAST interface.

1. From the JMCIS FOTC/BCST pull-down menu, select BROADCASTS. The BROADCASTS window appears.

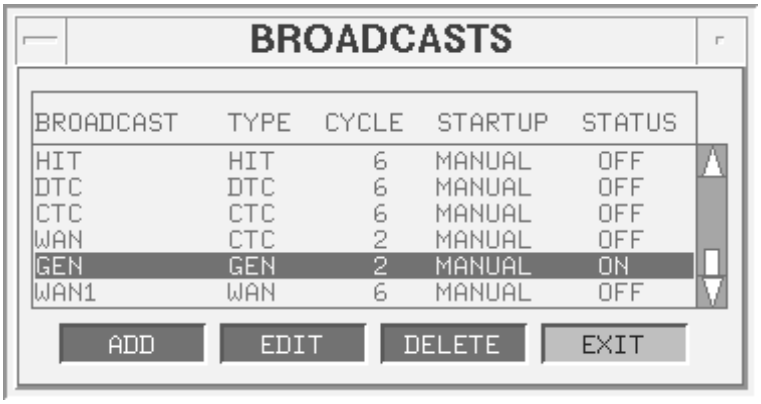


Figure 13.8-16 BROADCASTS Window

2. The GEN entry appears in the BROADCASTS window. Select GEN and click EDIT. The EDIT (GEN) BROADCAST window appears.

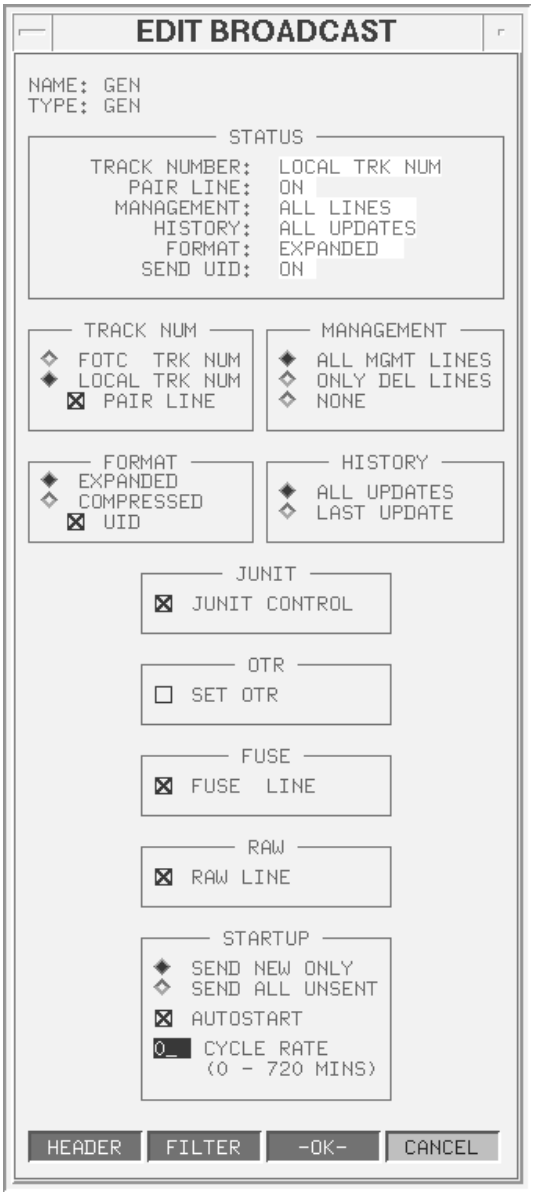


Figure 13.8-17 EDIT (GEN) BROADCAST Window

3. Edit the GEN BROADCAST settings as follows:

   a. Set the status for the GEN BROADCAST by selecting the diamond knobs in the TRACK NUM, MANAGEMENT, FORMAT, HISTORY, STARTUP boxes. As you select and deselect the diamond knobs, the fields in the STATUS box automatically update to reflect the changes. Settings for these parameters should be specific to your requirements, but suggested settings are listed below:

Data Field/Clickbox/Diamond Knob Box	Setting
TRACK NUM	LOCAL TRK NUM
PAIR LINE	OFF
MANAGEMENT	ALL LINES
HISTORY	ALL UPDATES
FORMAT	EXPANDED
SEND UID	ON
JUNIT CONTROL	ON
SET OTR	OFF
FUSE LINE	ON
RAW LINE	ON
SEND ALL UNSENT	ON
AUTOSTART	ON
CYCLE RATE	0 (ZERO)

b. Modify the PAIR LINE, UID, JUNIT CONTROL, SET OTR, FUSE LINE, RAW LINE, and AUTOSTART clickboxes.

c. Modify the CYCLE RATE field.

4. Click HEADER. The HEADER EDIT window appears.

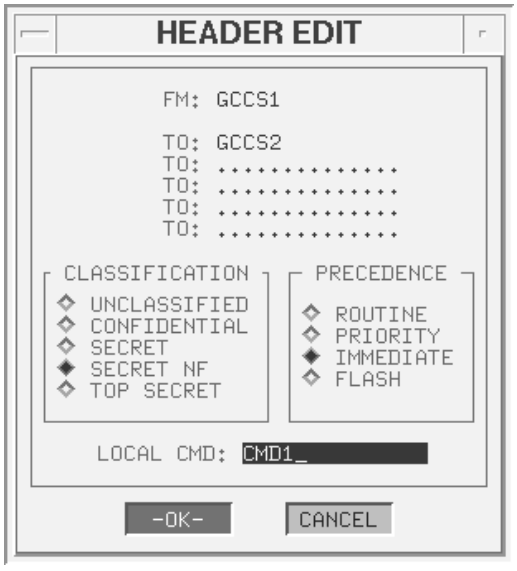


Figure 13.8-18 HEADER EDIT Window

5. Modify the HEADER EDIT window as follows:

   a. Modify the fields in the window to specify the sender and receivers of broadcast messages. Settings for these parameters should be specific to your requirements, but suggested settings are listed below:

Data Field/Clickbox/Diamond Knob Box	Setting
FM	GCCS
TO	Other (receiving) SYS/LAN
CLASSIFICATION	(Appropriate Classification)
PRECEDENCE	ROUTINE
LOCAL CMD	(Local Command Name)

   b. Select the appropriate diamond knobs to indicate the proper CLASSIFICATION and PRECEDENCE for the broadcast.

   c. Click OK to enter the header information for the GEN BROADCAST. The EDIT (GEN) BROADCAST window reappears.

6. Click FILTER. The DATABASE SEARCH window appears.

7. Edit the DATABASE SEARCH window as follows:

   a. Set diamond knobs and clickboxes as required. Fill in any fields to specify parameters. Settings in the DATABASE SEARCH window should be specific to your requirements, but it is suggested that you clear all fields in the filter so that all messages are sent.

   b. Click OK to save filter settings and return to the EDIT (GEN) BROADCAST window.

8. Click OK to save the GEN BROADCAST settings and return to the BROADCASTS window.

9. Ensure that the GEN BROADCAST is ON.

To Broadcast Data

Once the comms channels have been established on both LANs, an auto-forward destination entry created on the transmitting GCCS LAN, and the GEN BROADCAST interface established on the GCCS LAN, data may be broadcast from the GCCS LAN to the other (receiving) system/LAN. All tracks and opnotes are transmitted using the normal JMCIS transmission methods.

Note: In order to use the track management features available in GEN BROADCAST, the UID CORRELATION feature on the receiving system/LAN must be activated.

13.8.3 BROADCASTS POP-UP MENU

Options on the BROADCASTS pop-up menu (ADD, EDIT, DELETE, SELECT ALL, UNSELECT ALL, and EXIT) perform as described in the *Summary of Common Operations* or function as buttons with the same names described elsewhere in this section. The menu also includes:

START

Turn on a broadcast:

1. Select a broadcast with a status of OFF.
2. Click the START pop-up option to turn the broadcast ON.
3. When a broadcast is turned on, the broadcast transmissions are automatically sent to the other ships in the broadcast group.

STOP

Turn off a broadcast:

Warning: Turning on and off broadcasts can cause messages that are being sent to be lost. Be careful when using these options. Don't turn broadcasts on and off unnecessarily.

1. Select a broadcast with a status of ON.
2. Click the STOP pop-up option to turn the broadcast OFF.

WINDOW

Use the WINDOW option to:

- Change the cycle time, filter, or header information.
- Monitor the broadcast; view the broadcast transmissions as they are sent.
- Send transmissions about all tracks in the broadcast area of interest.

Note: The BROADCAST window will not open unless the broadcast is turned ON.

Figure13.8 -5 shows a HIT BROADCAST window.

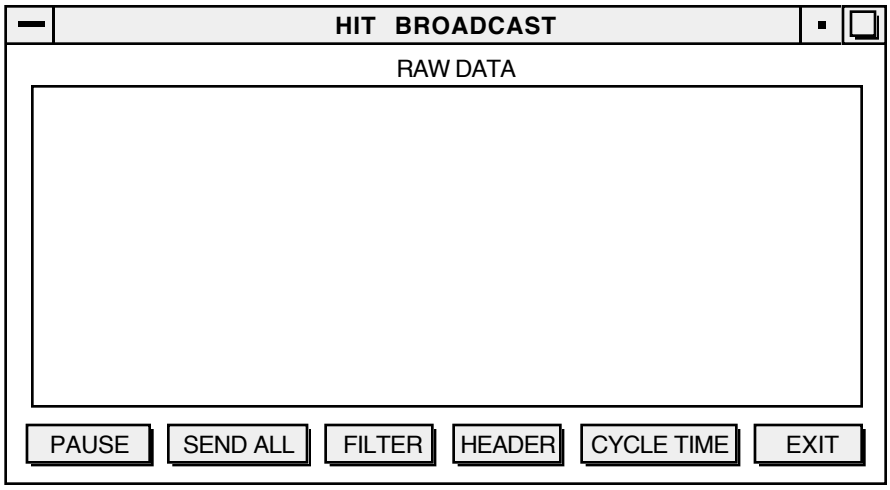


Figure13.8-19 HIT Broadcast Window

HIT BROADCAST Window Buttons

PAUSE—temporarily stop new data from being shown.

1. Click PAUSE. Use the scroll bar to scroll back and view older data that is no longer shown in the visible portion of the window.
2. When PAUSE is clicked the name of the button changes to CONTINUE.
3. Click CONTINUE to view live data again.

SEND ALL—send all broadcast track data to the broadcast destinations.

1. Click SEND ALL.
2. As the messages are sent, they appear and scroll through the box in the middle of the broadcast window.
3. Use only if there is a need to send all track data instead of just the update information, as is normally sent. For example, if a new ship has joined the group, this might be used to synchronize the new ship with the others in the broadcast group.

FILTER—identifies a geographical area or the type of tracks to be monitored.

1. Click FILTER to open the DATABASE SEARCH window.
   - This same window appears when using the SEARCH option from the TRACKS pull-down menu.
   - In this instance, the window is used to isolate a region of interest for the broadcast, or to choose a track type or CAT/THREAT type for tracks that are to be monitored.

- Note: The FOTC (broadcast in FOTC Coordinator mode) and the HIT (broadcast in FOTC Coordinator or Participant modes) sends only FOTC tracks regardless of the settings in the TRACK TYPE box of the DATABASE SEARCH window.

2. Use the fields, checkboxes, and diamond knobs on this window to choose the specific geographical area or the specific track types to be monitored.
3. Click OK to accept entries, or click CANCEL to discard the entries.

Note: Broadcast filters can also be set from the EDIT BROADCAST window.

HEADER—specify the recipients of a broadcast.

1. Click HEADER to access the HEADER EDIT window.
2. Enter the appropriate names in the available fields in the HEADER EDIT window to specify the sender and receivers of broadcast messages.
3. For more information about the HEADER EDIT window, refer to the *MSG HEADERS* section in the COMMS chapter.

Note: The message header can also be set from the EDIT BROADCAST window.

CYCLE TIME—specify the cycle time for the broadcast messages.

1. Click CYCLE TIME to open the CYCLE TIME window.
2. Enter the cycle time in minutes.
3. Click OK to save the time, or click CANCEL to discard any changes.

Note: The cycle time can also be set from the EDIT BROADCAST window.

EXIT—close the BROADCAST window.

Notes